

## Typescript For Javascript Programmers Steve Fenton

**"From library user to JavaScript developer"--Cover.**

**Build a simple, yet fully-functional modern web application using .NET Core 3.1, Entity Framework Core and Angular 9 Key Features** Explore the latest edition of the bestselling book **ASP.NET Core 2 and Angular 5 Design, build and deploy a Single Page Application or Progressive Web App with ASP.NET Core and Angular** Adopt a full stack approach to handle data management, Web APIs, application design, testing, SEO, security and deployment **Book Description** Learning full stack development calls for knowledge of both frontend and backend web development. By covering the impressive capabilities of ASP.NET Core 3.1 and Angular 9, right from project setup through to the deployment phase, this book will help you to develop your skills effectively. The book will get you started with using the .NET Core framework and Web API Controllers to implement API calls and server-side routing in the backend. Next, you will learn to build a data model with Entity Framework Core and configure it using either a local SQL Server instance or cloud-based data stores such as Microsoft Azure. The book will also help you handle user input with Angular reactive forms and frontend and backend validators for maximum effect. You will later explore the advanced debugging and unit testing features provided by xUnit.net (.NET Core) and Jasmine, as well as Karma for Angular. Finally, you will implement various authentication and authorization techniques with the ASP.NET Core Identity system and the new IdentityServer, as well as deploy your apps on Windows and Linux servers using IIS, Kestrel, and Nginx. By the end of this book, you will be equipped with the skills you need to create efficient web applications using ASP.NET Core and Angular. What you will learn **Implement a Web API interface with ASP.NET Core and consume it with Angular using RxJS Observables** Create a data model using Entity Framework Core with code-first approach and migrations support **Set up and configure a SQL database server using a local instance or a cloud data store on Azure** Perform C# and JavaScript debugging using Visual Studio 2019 **Create TDD and BDD unit test using xUnit, Jasmine, and Karma** Implement authentication and authorization using ASP.NET Identity, IdentityServer4, and Angular API **Build Progressive Web Apps and explore Service Workers** **Who this book is for** This book is for experienced ASP.NET developers who already know about ASP.NET Core and Angular and are looking to learn more about them and understand how to use them together to create production-ready Single Page Applications (SPAs) or Progressive Web Applications (PWAs). However, the fully-documented code samples (also available on GitHub) and the

***step-by-step implementation tutorials make this book easy-to-understand - even for beginners and developers who are just getting started.***

***Explore the features of this innovative open source language in depth, from working with the type system through object-orientation to understanding the runtime and the TypeScript compiler. This fully revised and updated second edition of Steve Fenton's popular book covers everything you need to discover this fascinating language and transform your experience of JavaScript development.***

***What's New in This Edition Coverage of major changes to modules, namespaces, and module loading New guidance on how to use inference to reduce the effort of using TypeScript Recommendations on compiler options A wide range of feature updates from intersections and tuples to async/await and the new approach to mixins What You'll Learn Understand the TypeScript type system, and how to use it effectively Apply object-oriented design using TypeScript Use modules effectively to manage large programs Integrate existing frameworks and libraries into your TypeScript program Who This Book Is For Web developers looking for a modern approach to JavaScript development***

***If you are interested in learning how to use Octopus Deploy, this book will take you through the whole process in just eight steps, with plenty of tips and screen-shots to aid learning. \* Learn how to package your application and database \* Find out how to publish packages to the library \* Discover how to create an automated deployment process \* Learn how to manage environments and machines \* Move your software along a deployment pipeline \* Add steps to obtain approval for deployments***

***Essential TypeScript***

***68 Specific Ways to Harness the Power of JavaScript***

***Introducing Functional Programming with Underscore.js***

***Application-Scale JavaScript Development***

***Electron in Action***

***TypeScript Quickly***

The official book on the Rust programming language, written by the Rust development team at the Mozilla Foundation, fully updated for Rust 2018. The Rust Programming Language is the official book on Rust: an open source systems programming language that helps you write faster, more reliable software. Rust offers control over low-level details (such as memory usage) in combination with high-level ergonomics, eliminating the hassle traditionally associated with low-level languages. The authors of The Rust Programming Language, members of the Rust Core Team, share their knowledge and experience to show you how to take full advantage of Rust's features--from installation to creating robust

and scalable programs. You'll begin with basics like creating functions, choosing data types, and binding variables and then move on to more advanced concepts, such as:

- Ownership and borrowing, lifetimes, and traits
- Using Rust's memory safety guarantees to build fast, safe programs
- Testing, error handling, and effective refactoring
- Generics, smart pointers, multithreading, trait objects, and advanced pattern matching
- Using Cargo, Rust's built-in package manager, to build, test, and document your code and manage dependencies
- How best to use Rust's advanced compiler with compiler-led programming techniques

You'll find plenty of code examples throughout the book, as well as three chapters dedicated to building complete projects to test your learning: a number guessing game, a Rust implementation of a command line tool, and a multithreaded server. New to this edition: An extended section on Rust macros, an expanded chapter on modules, and appendixes on Rust development tools and editions.

Provides information on how to write better JavaScript programs, covering such topics as functions, arrays, library and API design, and concurrency.

TypeScript is a typed superset of JavaScript with the potential to solve many of the headaches for which JavaScript is famous. But TypeScript has a learning curve of its own, and understanding how to use it effectively can take time. This book guides you through 62 specific ways to improve your use of TypeScript. Author Dan Vanderkam, a principal software engineer at Sidewalk Labs, shows you how to apply these ideas, following the format popularized by *Effective C++* and *Effective Java* (both from Addison-Wesley). You'll advance from a beginning or intermediate user familiar with the basics to an advanced user who knows how to use the language well. *Effective TypeScript* is divided into eight chapters: Getting to Know TypeScript TypeScript's Type System Type Inference Type Design Working with any Types Declarations and @types Writing and Running Your Code Migrating to TypeScript

How can you overcome JavaScript language oddities and unsafe features? With this book, you'll learn how to create code that's beautiful, safe, and simple to understand and test by using JavaScript's functional programming support. Author Michael Fogus shows you how to apply functional-style concepts with *Underscore.js*, a JavaScript library that facilitates functional programming techniques. Sample code is available on GitHub at <https://github.com/funjs/book-source>. Fogus helps you think in a functional way to help you minimize complexity in the programs you build. If you're a JavaScript programmer hoping to learn functional programming techniques, or a functional programmer looking to learn JavaScript, this book is the ideal introduction. Use applicative programming techniques with first-class functions Understand how and why you might leverage variable scoping and closures Delve into higher-order functions—and learn how they take other functions as arguments for maximum advantage Explore ways to compose new functions from existing functions Get around JavaScript's limitations for using recursive functions Reduce, hide, or eliminate the footprint

of state change in your programs Practice flow-based programming with chains and functional pipelines Discover how to code without using classes

Learning TypeScript

Programming TypeScript

Native Interactivity and Animation for the Web

TypeScript Revealed

An In-Depth Guide for Programmers

A To-the-Point Guide to JSON

**TypeScript Revealed is a quick 100-page guide to Anders Hejlsberg's new take on JavaScript. With this brief, fast-paced introduction to TypeScript, .NET, Web and Windows 8 application developers who are already familiar with JavaScript will easily get up to speed with TypeScript and decide whether or not to start incorporating it into their own development.**

**TypeScript is 'JavaScript for Application-scale development'; a superset of JavaScript that brings to it an additional object-oriented-like syntax familiar to .NET programmers that compiles down into simple, clean JavaScript that any browser can run today. It's also tied to the next version of the JavaScript standard, which means that TypeScript will continue to evolve over time to keep in step with that standard and with the capabilities of the engines that will execute JavaScript applications.**

**If you are a .NET developer, Web designer or developer, or a programmer with a keen interest in scalable applications, TypeScript Revealed is a great way to get started with the language, learn how it compiles into JavaScript, and how easy it is to learn from a .NET/Java developer's perspective. Takes you through the language features in Typescript additional to those in JavaScript**

**Describes the tooling and community support for TypeScript development Discusses how TypeScript can be included in ASP.NET, Windows 8, and node.js application development projects. What you'll learn**

**Why you should care about TypeScript What it does and what it doesn't do The current toolset and levels of support The new syntax features of**

**TypeScript How to build your own TypeScript declaration files How to incorporate TypeScript into your projects Who this**

**book is for TypeScript Revealed is aimed at the early adopter developer who is already familiar with Microsoft tools and**

**.NET and/or JavaScript development that wants a flavor of TypeScript distilled, culled, and organized in one place. Table of**

**ContentsChapter 1: What is TypeScript? Why TypeScript? Chapter 2: New Syntax Static Typing & Type Inference Tooling**

**Interfaces Classes Derived classes using the 'extends' keyword. Arrow functions Modules Enforcing the Intention of some**

**features. Typescript vs EcmaScript6 Chapter 3: Working with TypeScript Tools & Resources**

**What will you learn from this book? This brain-friendly guide teaches you everything from JavaScript language**

**fundamentals to advanced topics, including objects, functions, and the browser's document object model. You won't just be**

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reading—you'll be playing games, solving puzzles, pondering mysteries, and interacting with JavaScript in ways you never imagined. And you'll write real code, lots of it, so you can start building your own web applications. Prepare to open your mind as you learn (and nail) key topics including: The inner details of JavaScript How JavaScript works with the browser The secrets of JavaScript types Using arrays The power of functions How to work with objects Making use of prototypes Understanding closures Writing and testing applications What's so special about this book? We think your time is too valuable to waste struggling with new concepts. Using the latest research in cognitive science and learning theory to craft a multi-sensory learning experience, *Head First JavaScript Programming* uses a visually rich format designed for the way your brain works, not a text-heavy approach that puts you to sleep. This book replaces *Head First JavaScript*, which is now out of print.

Build beautiful data visualizations with D3 The Fullstack D3 book is the complete guide to D3. With dozens of code examples showing each step, you can gain new insights into your data by creating visualizations. Learn how to quickly turn data into insights with D3 We have the data. But it needs to be understood by humans. The best way to convert this data into an understandable format is to mold it into a data visualization. And D3 is the best tool for job if you need to create custom data visualizations. With *Fullstack D3* and *Data Visualization* you and your team will be able to share key insights, uncover problems before they start, and impress your boss by creating gorgeous visualizations. What's Inside Chapter 0: Introduction When would you want to use D3.js? There is a spectrum of libraries to create charts on the web: on one end, you have easy-to-use, basic libraries that will create a standard chart type. Chapter 1: Making your first chart In this chapter we make a line chart. Line charts are a great starting place because of their popularity, but also because of their simplicity. Chapter 2: Making a scatterplot When looking at the relationship between two metrics, a scatterplot is a good choice. In this chapter we show how to create a scatterplot. Chapter 3: Making a bar chart In this chapter we cover how to create a histogram, which is a bar chart that shows the distribution of one metric, with the metric values on the x axis and the frequency of values on the y axis. Chapter 4: Animations and Transitions When we update our charts, we can animate elements from their old to their new positions. These animations can be visually exciting, but more importantly, they have functional benefits. Chapter 5: Interactions The biggest advantage of creating charts with JavaScript is the ability to respond to user input. Chapter 6: Making a map Maps are also uniquely good at answering geography-based questions. In this chapter, we'll build a map and learn how to plot values within a location. Chapter 7: Data Visualization Basics Now that we're comfortable with how to create a chart, we should zoom out a bit and talk about what chart to create. Chapter 8: Common Charts In this chapter, we talk about common chart types and when to use them. Chapter 9: Dashboard Design A dashboard is any web interface that makes sense out of dynamic data, and in this chapter we learn how to make one. Chapter 10: Advanced Visualization:

**Marginal Histogram** First, we'll focus on enhancing a chart we've already made: our scatter plot. This chart will have multiple goals, all exploring the daily temperature ranges in our weather dataset. **Chapter 11: Advanced Visualization: Radial Weather Chart** We talked about radar charts in Chapter 10. For this project, we'll build a more complex radar chart. **Chapter 12: Advanced Visualization: Animated Sankey Diagram** In this project, we'll be simulating real data and creating an animated diagram to engage our viewers. **Chapter 13: D3 and React** What's the best way to draw a chart within React? It turns out that there is a fair bit of overlap in functionality between a React and D3 - we'll discuss how we can create blazing fast charts using the two together. **Chapter 14: D3 and Angular** In this chapter we show how to create optimized SVG charts using D3 and Angular.

**Summary** TypeScript is JavaScript with an important upgrade! By adding a strong type system to JavaScript, TypeScript can help you eliminate entire categories of runtime errors. In **TypeScript Quickly**, you'll learn to build rock-solid apps through practical examples and hands-on projects under the expert instruction of experienced web developers Yakov Fain and Anton Moiseev. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Strong typing can eliminate nearly all errors caused by unanticipated data values. With TypeScript, an enhanced version of JavaScript, you can specify types and type annotations so your code is easier to read and far less likely to fail at runtime. And because the core of TypeScript is standard JavaScript, it runs on all major browsers and can be used with frameworks like Angular, Vue, and React. About the book **TypeScript Quickly** teaches you to exploit the benefits of types in browser-based and standalone applications. In this practical guide, you'll build a fascinating blockchain service app that takes you through a range of type-sensitive programming techniques. As you go, you'll also pick up valuable techniques for object-oriented programming with classes, interfaces, and advanced features such as decorators and conditional types. What's inside **Mastering TypeScript** syntax Using TypeScript with JavaScript libraries Tooling with Babel and Webpack Developing TypeScript apps using Angular, React, and Vue About the reader For web developers comfortable with JavaScript and HTML. About the author Yakov Fain and Anton Moiseev are experienced web developers. They have authored two editions of Manning's **Angular Development with TypeScript**. **Table of Contents: PART 1 MASTERING THE TYPESCRIPT SYNTAX** 1 | Getting familiar with TypeScript 2 | Basic and custom types 3 | Object-oriented programming with classes and interfaces 4 | Using enums and generics 5 | Decorators and advanced types 6 | Tooling 7 | Using TypeScript and JavaScript in the same project **PART 2 APPLYING TYPESCRIPT IN A BLOCKCHAIN APP** 8 | Developing your own blockchain app 9 | Developing a browser-based blockchain node 10 | Client-server communications using Node.js, TypeScript, and WebSockets 11 | Developing Angular apps with TypeScript 12 | Developing the blockchain client in Angular 13 | Developing React.js apps with TypeScript 14 | Developing a blockchain client in React.js 15 | Developing Vue.js apps with

**TypeScript 16 | Developing the blockchain client in Vue.js**

**Getting Started with Knockout.js for .NET Developers**

**Functional JavaScript**

**The Pragmatic Programmer**

**Essential TypeScript 4**

**Web Development with Node and Express**

**TypeScript for Javascript Programmers**

The book introduces the TypeScript language and its features to anyone looking to develop rich web applications. Whether you are new to web development or are an experienced engineer with strong JavaScript skills, this book will get you writing. A basic understanding of JavaScript and its language features are necessary for this book.

Learn how to build dynamic web applications with Express, a key component of the Node/JavaScript development stack. This on guide, author Ethan Brown teaches you the fundamentals through the development of a fictional application that includes a website and a RESTful API. You'll also learn web architecture best practices to help you build single-page, multi-page web apps with Express. Express strikes a balance between a robust framework and no framework at all, allowing you to make your own architecture choices. With this book, frontend and backend engineers familiar with JavaScript will discover new techniques at web development. Create webpage templating system for rendering dynamic data Dive into request and response middleware, and URL routing Simulate a production environment for testing and development Focus on persistence with databases, particularly MongoDB Make your resources available to other programs with RESTful APIs Build secure applications with authentication, authorization, and HTTPS Integrate with social media, geolocation, and other third-party services Implications for launching and maintaining your app Learn critical debugging skills This book covers Express 4.0.

This book will demystify Angular as a framework, as well as provide clear instructions and examples on how to get started with writing scalable Angular applications. Angular: Up & Running covers most of the major pieces of Angular, but in a structured manner that is generally used in hands-on training. Each chapter takes one concept, and use examples to cover how to solve Problems to work on (with solutions) at the end of each chapter reinforce the learnings of each chapter and allow you to get hands-on with Angular.

Programming Language Explorations is a tour of several modern programming languages in use today. The book teaches fundamental language concepts using a language-by-language approach. As each language is presented, the authors introduce concepts as they appear, and revisit familiar ones, comparing their implementation with those from languages seen before. The goal is to present and explain common theoretical concepts of language design and usage, illustrated in the context of real-world examples.

language overviews. Twelve languages have been carefully chosen to illustrate a wide range of programming styles and patterns. The book introduces each language with a common trio of example programs, and continues with a brief tour of its syntax, type system, functional forms, scoping rules, concurrency patterns, and sometimes, metaprogramming facilities. Each chapter ends with a summary, pointers to open source projects, references to materials for further study, and a collection of exercises, designed as further explorations. Following the twelve featured language chapters, the authors provide a chapter on two dozen additional languages, and a summary chapter bringing together many of the questions explored throughout. Targeted to both professionals and advanced college undergraduates looking to expand the range of languages and patterns they can apply in their work and studies, the book pays attention to modern programming practice, covers a wide range of languages and patterns, and provides many runnable examples, all of which can be found in an online GitHub repository. The exploration style places this book between a tutorial and a reference, with a focus on the concepts and practices underlying programming language design and usage. Instructors looking for material to supplement a programming languages or computer engineering course may find the approach unconventional, but hopefully, a lot more fun.

Build 9 different apps with TypeScript 3 and JavaScript frameworks such as Angular, React, and Vue

TypeScript Essentials

Cranked

JavaScript for .NET Developers

Pro AngularJS

ASP.NET Core 3 and Angular 9

Flash is fading fast as Canvas continues to climb. The second edition of this popular book gets you started with HTML5 Canvas by showing you how to build interactive multimedia applications. You'll learn how to draw, render text, manipulate images, and create animation—all in the course of building an interactive web game throughout the book. Updated for the latest implementations of Canvas and related HTML5 technologies, this edition includes clear and reusable code examples to help you quickly pick up the basics—whether you currently use Flash, Silverlight, or just HTML and JavaScript. Discover why HTML5 is the future of innovative web development. Create and modify 2D drawings, text, and bitmap images Use algorithms for math-based movement and physics interactions Incorporate and manipulate video, and add audio Build a basic framework for creating a variety of games Use bitmaps and tile sheets to develop animated game graphics

Go mobile: build web apps and then modify them for iOS devices Explore ways to use Canvas for 3D and multiplayer game applications

TypeScript for Javascript Programmers Pro TypeScript Application-Scale JavaScript Development Apress

Unlock the potential of evergreen browsers and increase the efficiency of your ASP.NET applications by learning how to write JavaScript About This Book Boost your skillset and start bringing JavaScript into your web development projects Leverage your existing ASP.NET knowledge to develop dynamic and responsive SPAs Learn effective design patterns for sustainable, and scalable web development Who This Book Is For This book is for ASP.NET developers that want to bring JavaScript into their skillset to build applications that are truly dynamic and responsive. It's for developers who are focused on developing for users who want to deliver a great end product and a fantastic experience. What You Will Learn Get to grips with the basic to advanced concepts of JavaScript Learn how to use JavaScript on server side using Node.js Develop web applications in ASP.NET using JavaScript Get to know with industry-wide best practices and design patterns that provide maintainability and scalability Build an ASP.NET application using Angular 2 with TypeScript and Web API Explore WinJS and see how to use mobile capabilities from web applications Use JavaScript to develop scalable ASP.NET applications See how to test and debug JavaScript In Detail If you want to improve responsiveness or the UX in your ASP.NET applications, JavaScript can be a life saver. In an age where server-side operations have shifted to the client, being able to handle JavaScript with confidence and fluency is vital for ASP.NET developers. There's no point trying to fight it, so start learning with this book. Make sure your projects exceed user expectations. Begin by getting stuck into the basics of JavaScript, and explore the language in the context of ASP.NET Core. You'll then find out how to put the principles into practice, as you learn how to develop a basic ASP.NET application using Angular 2 and TypeScript. You'll also develop essential skills required to develop responsive apps, with a little help from AJAX, ensuring that you're building projects that can be easily accessed across different devices. With guidance on Node.js and some neat techniques to

test and debug a range of JavaScript libraries in Visual Studio, you'll soon be well on your way to combining JavaScript with ASP.NET in a way that's capable of meeting the challenges of modern web development head-on. Style and approach This book will build the skillset of every .NET developer, so they can build stronger and more responsive web apps with confidence.

Summary Electron in Action guides you, step-by-step, as you learn to build cross-platform desktop applications that run on Windows, OSX, and Linux. By the end of the book, you'll be ready to build simple, snappy applications using JavaScript, Node, and the Electron framework. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Wouldn't it be great to build desktop applications using just your web dev skills? Electron is a framework designed for exactly that! Fully cross-platform, Electron lets you use JavaScript and Node to create simple, snappy desktop apps. Spinning up tools, games, and utilities with Electron is fast, practical, and fun! About the Book Electron in Action teaches you to build cross-platform applications using JavaScript, Node, and the Electron framework. You'll learn how to think like a desktop developer as you build a text tool that reads and renders Markdown. You'll add OS-specific features like the file system, menus, and clipboards, and use Chromium's tools to distribute the finished product. You'll even round off your learning with data storage, performance optimization, and testing. What's inside Building for macOS, Windows, and Linux Native operating system APIs Using third-party frameworks like React Deploying to the Mac App Store About the Reader Requires intermediate JavaScript and Node skills. No experience building desktop apps required. About the Author Steven Kinney is a principal engineer at SendGrid, an instructor with Frontend Masters, and the organizer of the DinosaurJS conference in Denver, Colorado. Table of Contents PART 1 - GETTING STARTED WITH ELECTRON Introducing Electron Your first Electron application PART 2 - BUILDING CROSS-PLATFORM APPLICATIONS WITH ELECTRON Building a notes application Using native file dialog boxes and facilitating interprocess communication Working with multiple windows Working with files Building application and context menus Further operating system integration and dynamically enabling menu items Introducing the

tray module Building applications with the menubar library Using transpilers and frameworks Persisting use data and using native Node.js modules Testing applications with Spectron PART 3 - DEPLOYING ELECTRON APPLICATIONS Building applications for deployment Releasing and updating applications Distributing your application through the Mac App Store Effective JavaScript

Refactoring JavaScript

JavaScript: The Good Parts

Angular: Up and Running

Learning Angular, Step by Step

**The extensive adoption of JavaScript for application development, and the ability to use HTML and JavaScript to create Windows Store apps, has made JavaScript a vital part of the Windows development ecosystem. Microsoft has done extensive work to make JavaScript easier to use. Microsoft's TypeScript extends many familiar features of .NET programming to JavaScript. With TypeScript Succinctly by Steve Fenton, you will learn how TypeScript provides optional static typing and classes to JavaScript development, how to create and load modules, and how to work with existing JavaScript libraries through ambient declarations. TypeScript is even significantly integrated with Visual Studio to provide the autocompletion and type checking you are most comfortable with.**

**"This concise guide helps busy IT professionals get up and running quickly with this popular data interchange format, and provides a deep understanding of how JSON works ... begins with an overview of JSON syntax, data types, formatting, and security concerns before exploring the many ways you can apply JSON today. From Web APIs and server-side language libraries to NoSQL databases and client-side frameworks, JSON has emerged as a viable alternative to XML for exchanging data between different platforms. If you have some programming experience and understand HTML and JavaScript, this is your book"--Publisher's description. Tapadiya takes a straightforward, hands-on approach to explain everything readers need to know from development to deployment and maintenance for this platform--all from a developer's perspective. Using C# as the primary language, and with plenty of code examples throughout, this book is an excellent way to learn. Like it or not, JavaScript is everywhere these days—from browser to server to mobile—and now you, too, need to learn the language or dive deeper than you have. This concise book guides you into and through JavaScript, written by a veteran programmer who once found himself in the same position. Speaking JavaScript helps you approach the language with four standalone sections. First, a quick-start guide teaches**

**you just enough of the language to help you be productive right away. More experienced JavaScript programmers will find a complete and easy-to-read reference that covers each language feature in depth. Complete contents include: JavaScript quick start: Familiar with object-oriented programming? This part helps you learn JavaScript quickly and properly. JavaScript in depth: Learn details of ECMAScript 5, from syntax, variables, functions, and object-oriented programming to regular expressions and JSON with lots of examples. Pick a topic and jump in. Background: Understand JavaScript's history and its relationship with other programming languages. Tips, tools, and libraries: Survey existing style guides, best practices, advanced techniques, module systems, package managers, build tools, and learning resources.**

**A Handbook of Agile Software Craftsmanship**

**Head First JavaScript Programming**

**From Beginner to Pro**

**Turning Bad Code Into Good Code**

**Cross-platform Desktop Application Development: Electron, Node, NW.js, and React**

**Effective TypeScript**

Gain in-depth knowledge of TypeScript and the latest ECMAScript standards by building robust web applications across different domains

**Key Features** Apply the cutting-edge features of TypeScript 3.0 to build high-performance, maintainable applications

Learn through practical examples of using TypeScript with popular frameworks, such as Angular and React

**Focus** on building high-quality applications that are modular, scalable and adaptable

**Book Description** With the demand for ever more complex websites, the need to write robust, standard-compliant JavaScript has never been greater. TypeScript is modern JavaScript with the support of a first-class type system, which makes it simpler to write complex web systems. With this book, you'll explore core concepts and learn by building a series of websites and TypeScript apps. You'll start with an introduction to TypeScript features that are often overlooked in other books, before moving on to creating a simple markdown parser. You'll then explore React and get up to speed with creating a client-side contacts manager. Next, the book will help you discover the Angular framework and use the MEAN stack to create a photo gallery. Later sections will assist you in creating a GraphQL Angular Todo app and then writing a Socket.IO chatroom. The book will also lead you through developing your final Angular project which is a mapping app. As you progress, you'll gain insights into React with Docker and microservices. You'll even focus on how to build an image classification program with machine learning using TensorFlow. Finally, you'll learn to combine TypeScript and C# to create an ASP.NET Core-based music library app. By the end of this book, you'll be able to confidently use TypeScript 3.0 and different JavaScript frameworks to build high-quality apps. What you will learn

**Discover** how to use TypeScript to write code using common patterns

**Get to grips** with using popular frameworks and libraries with TypeScript

**Leverage** the

power of both server and client using TypeScript Learn how to apply exciting new paradigms such as GraphQL and TensorFlow Use popular cloud-based authenticated services Combine TypeScript with C# to create ASP.NET Core applications Who this book is for This book is for programmers and web developers who are familiar with TypeScript and want to put their knowledge to work by building real-world complex applications. Prior experience with any other web framework is not required.

Any programmer working with a dynamically typed language will tell you how hard it is to scale to more lines of code and more engineers. That's why Facebook, Google, and Microsoft invented gradual static type layers for their dynamically typed JavaScript and Python code. This practical book shows you how one such type layer, TypeScript, is unique among them: it makes programming fun with its powerful static type system. If you're a programmer with intermediate JavaScript experience, author Boris Cherny will teach you how to master the TypeScript language. You'll understand how TypeScript can help you eliminate bugs in your code and enable you to scale your code across more engineers than you could before. In this book, you'll:

- Start with the basics: Learn about TypeScript's different types and type operators, including what they're for and how they're used
- Explore advanced topics: Understand TypeScript's sophisticated type system, including how to safely handle errors and build asynchronous programs
- Dive in hands-on: Use TypeScript with your favorite frontend and backend frameworks, migrate your existing JavaScript project to TypeScript, and run your TypeScript application in production

Work with Typescript and get the most from this versatile open source language. Author Adam Freeman begins this book by describing Typescript and the benefits it offers, and goes on to show you how to use TypeScript in realistic scenarios, going in-depth to give you the knowledge you need. Starting from the nuts-and-bolts and building up to the most advanced and sophisticated features, you will learn how TypeScript builds on the JavaScript type system to create a safer and more productive development experience and understand how TypeScript can be used to create applications using popular frameworks, including Node.js, Angular, React, and Vue.js. Each topic is covered clearly and concisely and is packed with the details you need to learn to be truly effective. The most important features are given a no-nonsense in-depth treatment and chapters include common problems and details of how to avoid them. What You Will Learn Gain a solid understanding of the TypeScript language and tools Use TypeScript for client- and server-side development Extend and customize TypeScript Debug and unit test your TypeScript code Who This Book Is For Developers who want to start using TypeScript, for example to create rich web applications using Angular, React, or Vue.js Adam Freeman is an experienced IT professional who has held senior positions in a range of companies, most recently serving as chief technology officer and chief operating officer of a global bank. Now retired, he spends his time writing and long-distance

running.

Most programming languages contain good and bad parts, but JavaScript has more than its share of the bad, having been developed and released in a hurry before it could be refined. This authoritative book scrapes away these bad features to reveal a subset of JavaScript that's more reliable, readable, and maintainable than the language as a whole—a subset you can use to create truly extensible and efficient code. Considered the JavaScript expert by many people in the development community, author Douglas Crockford identifies the abundance of good ideas that make JavaScript an outstanding object-oriented programming language—ideas such as functions, loose typing, dynamic objects, and an expressive object literal notation. Unfortunately, these good ideas are mixed in with bad and downright awful ideas, like a programming model based on global variables. When Java applets failed, JavaScript became the language of the Web by default, making its popularity almost completely independent of its qualities as a programming language. In *JavaScript: The Good Parts*, Crockford finally digs through the steaming pile of good intentions and blunders to give you a detailed look at all the genuinely elegant parts of JavaScript, including: Syntax Objects Functions Inheritance Arrays Regular expressions Methods Style Beautiful features The real beauty? As you move ahead with the subset of JavaScript that this book presents, you'll also sidestep the need to unlearn all the bad parts. Of course, if you want to find out more about the bad parts and how to use them badly, simply consult any other JavaScript book. With *JavaScript: The Good Parts*, you'll discover a beautiful, elegant, lightweight and highly expressive language that lets you create effective code, whether you're managing object libraries or just trying to get Ajax to run fast. If you develop sites or applications for the Web, this book is an absolute must.

Full stack web development with .NET Core 3.1 and Angular 9, 3rd Edition

Clean Code

Build Beautiful Data Visualizations with

Advanced TypeScript Programming Projects

A Brain-Friendly Guide

NET Programming

Statistics, big data, and machine learning for Clojure programmers About This Book Write code using Clojure to harness the power of your data Discover the libraries and frameworks that will help you succeed A practical guide to understanding how the Clojure programming language can be used to derive insights from data Who This Book Is For This book is aimed at developers who are already productive in Clojure but who are overwhelmed by the breadth and depth of understanding required to be effective in the field of data science. Whether you're tasked with delivering a specific analytics project or simply suspect that you could be deriving more value from your data, this book will inspire you with the opportunities – and inform you of the risks – that exist in data of all shapes and sizes. What You Will Learn Perform

hypothesis testing and understand feature selection and statistical significance to interpret your results with confidence Implement the core machine learning techniques of regression, classification, clustering and recommendation Understand the importance of the value of simple statistics and distributions in exploratory data analysis Scale algorithms to web-sized datasets efficiently using distributed programming models on Hadoop and Spark Apply suitable analytic approaches for text, graph, and time series data Interpret the terminology that you will encounter in technical papers Import libraries from other JVM languages such as Java and Scala Communicate your findings clearly and convincingly to nontechnical colleagues In Detail The term “data science” has been widely used to define this new profession that is expected to interpret vast datasets and translate them to improved decision-making and performance. Clojure is a powerful language that combines the interactivity of a scripting language with the speed of a compiled language. Together with its rich ecosystem of native libraries and an extremely simple and consistent functional approach to data manipulation, which maps closely to mathematical formula, it is an ideal, practical, and flexible language to meet a data scientist's diverse needs. Taking you on a journey from simple summary statistics to sophisticated machine learning algorithms, this book shows how the Clojure programming language can be used to derive insights from data. Data scientists often forge a novel path, and you'll see how to make use of Clojure's Java interoperability capabilities to access libraries such as Mahout and Mlib for which Clojure wrappers don't yet exist. Even seasoned Clojure developers will develop a deeper appreciation for their language's flexibility! You'll learn how to apply statistical thinking to your own data and use Clojure to explore, analyze, and visualize it in a technically and statistically robust way. You can also use Incanter for local data processing and ClojureScript to present interactive visualisations and understand how distributed platforms such as Hadoop and Spark's MapReduce and GraphX's BSP solve the challenges of data analysis at scale, and how to explain algorithms using those programming models. Above all, by following the explanations in this book, you'll learn not just how to be effective using the current state-of-the-art methods in data science, but why such methods work so that you can continue to be productive as the field evolves into the future. Style and approach This is a practical guide to data science that teaches theory by example through the libraries and frameworks accessible from the Clojure programming language.

What others in the trenches say about The Pragmatic Programmer... “The cool thing about this book is that it’s great for keeping the programming process fresh. The book helps you to continue to grow and clearly comes from people who have been there.” —Kent Beck, author of Extreme Programming Explained: Embrace Change “I found this book to be a great mix of solid advice and wonderful analogies!” —Martin Fowler, author of Refactoring and UML Distilled “I would buy a copy, read it twice, then tell all my colleagues to run out and grab a copy. This is a book I would never loan because I would worry about it being lost.” —Kevin Ruland, Management Science, MSG-Logistics “The wisdom and practical experience of the authors is obvious. The topics presented are relevant and useful.... By far its greatest strength for me has been the outstanding analogies—tracer bullets, broken windows, and the fabulous helicopter-based explanation of the need for orthogonality, especially in a crisis situation. I have little doubt that this book will eventually become an excellent source of useful information for journeymen programmers and expert mentors alike.” —John Lakos, author of Large-Scale C++ Software Design “This is the sort of book I will buy a dozen copies of when it comes out so I can give it to my clients.” —Eric Vought, Software Engineer “Most modern books on software development fail to cover the basics of what makes a great software developer, instead spending their time on syntax or technology where in reality the greatest leverage possible for any software team is in having talented developers who really know their craft well. An excellent book.” —Pete McBreen, Independent Consultant “Since reading this book, I have implemented many of the practical suggestions and tips it contains. Across the board, they have saved my company time and money while helping me get my job done quicker! This should

be a desktop reference for everyone who works with code for a living.” —Jared Richardson, Senior Software Developer, iRenaissance, Inc. “I would like to see this issued to every new employee at my company....” —Chris Cleeland, Senior Software Engineer, Object Computing, Inc. “If I’m putting together a project, it’s the authors of this book that I want. . . . And failing that I’d settle for people who’ve read their book.” —Ward Cunningham

Straight from the programming trenches, *The Pragmatic Programmer* cuts through the increasing specialization and technicalities of modern software development to examine the core process--taking a requirement and producing working, maintainable code that delights its users. It covers topics ranging from personal responsibility and career development to architectural techniques for keeping your code flexible and easy to adapt and reuse. Read this book, and you'll learn how to Fight software rot; Avoid the trap of duplicating knowledge; Write flexible, dynamic, and adaptable code; Avoid programming by coincidence; Bullet-proof your code with contracts, assertions, and exceptions; Capture real requirements; Test ruthlessly and effectively; Delight your users; Build teams of pragmatic programmers; and Make your developments more precise with automation. Written as a series of self-contained sections and filled with entertaining anecdotes, thoughtful examples, and interesting analogies, *The Pragmatic Programmer* illustrates the best practices and major pitfalls of many different aspects of software development. Whether you're a new coder, an experienced programmer, or a manager responsible for software projects, use these lessons daily, and you'll quickly see improvements in personal productivity, accuracy, and job satisfaction. You'll learn skills and develop habits and attitudes that form the foundation for long-term success in your career. You'll become a Pragmatic Programmer.

AngularJS is the leading framework for building dynamic JavaScript applications that take advantage of the capabilities of modern browsers and devices. AngularJS, which is maintained by Google, brings the power of the Model-View-Controller (MVC) pattern to the client, providing the foundation for complex and rich web apps. It allows you to build applications that are smaller, faster, and with a lighter resource footprint than ever before. Best-selling author Adam Freeman explains how to get the most from AngularJS. He begins by describing the MVC pattern and the many benefits that can be gained from separating your logic and presentation code. He then shows how you can use AngularJS's features within in your projects to produce professional-quality results. Starting from the nuts-and-bolts and building up to the most advanced and sophisticated features AngularJS is carefully unwrapped, going in-depth to give you the knowledge you need. Each topic is covered clearly and concisely and is packed with the details you need to learn to be truly effective. The most important features are given a no-nonsense in-depth treatment and chapters include common problems and details of how to avoid them.

This book is intended for .NET developers who want to use the MVVM design pattern to create powerful client-side JavaScript linked to server-side C# logic. Basic experience with ASP.NET, Razor, and creating web applications is needed.

JavaScript Bible

Leveraging the JavaScript Stack

The Rust Programming Language (Covers Rust 2018)

62 Specific Ways to Improve Your TypeScript

From Journeyman to Master

Exploring Octopus Deploy

The bestselling JavaScript reference, now updated to reflect changes in technology and best practices As the

most comprehensive book on the market, the JavaScript Bible is a classic bestseller that keeps you up to date on the latest changes in JavaScript, the leading technology for incorporating interactivity into Web pages. Part tutorial, part reference, this book serves as both a learning tool for building new JavaScript skills as well as a detailed reference for the more experienced JavaScript user. You'll get up-to-date coverage on the latest JavaScript practices that have been implemented since the previous edition, as well as the most updated code listings that reflect new concepts. Plus, you'll learn how to apply the latest JavaScript exception handling and custom object techniques. Coverage includes: JavaScript's Role in the World Wide Web and Beyond Developing a Scripting Strategy Selecting and Using Your Tools JavaScript Essentials Your First JavaScript Script Browser and Document Objects Scripts and HTML Documents Programming Fundamentals Window and Document Objects Forms and Form Elements Strings, Math, and Dates Scripting Frames and Multiple Windows Images and Dynamic HTML The String Object The Math, Number, and Boolean Objects The Date Object The Array Object JSON - Native JavaScript Object Notation E4X - Native XML Processing Control Structures and Exception Handling JavaScript Operators Function Objects and Custom Objects Global Functions and Statements Document Object Model Essentials Generic HTML Element Objects Window and Frame Objects Location and History Objects Document and Body Objects Link and Anchor Objects Image, Area, Map, and Canvas Objects Event Objects Practical examples of working code round out this new edition and contribute to helping you learn JavaScript quickly yet thoroughly.

Build powerful cross-platform desktop applications with web technologies such as Node, NW.js, Electron, and React About This Book Build different cross-platform HTML5 desktop applications right from planning, designing, and deployment to enhancement, testing, and delivery Forget the pain of cross-platform compatibility and build efficient apps that can be easily deployed on different platforms. Build simple to advanced HTML5 desktop apps, by integrating them with other popular frameworks and libraries such as Electron, Node.js, Nw.js, React, Redux, and TypeScript Who This Book Is For This book has been written for developers interested in creating desktop applications with HTML5. The first part requires essential web-master skills (HTML, CSS, and JavaScript). The second demands minimal experience with React. And finally for the third it would be helpful to have a basic knowledge of React, Redux, and TypeScript. What You Will Learn Plan, design, and develop different cross-platform desktop apps Application architecture with React and local state Application architecture with React and Redux store Code design with TypeScript interfaces and specialized types CSS and component libraries such as Photonkit, Material UI, and React MDL HTML5 APIs such as desktop notifications,

WebSockets, WebRTC, and others Desktop environment integration APIs of NW.js and Electron Package and distribute for NW.JS and Electron In Detail Building and maintaining cross-platform desktop applications with native languages isn't a trivial task. Since it's hard to simulate on a foreign platform, packaging and distribution can be quite platform-specific and testing cross-platform apps is pretty complicated. In such scenarios, web technologies such as HTML5 and JavaScript can be your lifesaver. HTML5 desktop applications can be distributed across different platforms (Window, MacOS, and Linux) without any modifications to the code. The book starts with a walk-through on building a simple file explorer from scratch powered by NW.JS. So you will practice the most exciting features of bleeding edge CSS and JavaScript. In addition you will learn to use the desktop environment integration API, source code protection, packaging, and auto-updating with NW.JS. As the second application you will build a chat-system example implemented with Electron and React. While developing the chat app, you will get Photonkit. Next, you will create a screen capturer with NW.JS, React, and Redux. Finally, you will examine an RSS-reader built with TypeScript, React, Redux, and Electron. Generic UI components will be reused from the React MDL library. By the end of the book, you will have built four desktop apps. You will have covered everything from planning, designing, and development to the enhancement, testing, and delivery of these apps. Style and approach Filled with real world examples, this book teaches you to build cross-platform desktop apps right from scratch using a step-by-step approach.

Exploit the features of TypeScript to develop and maintain captivating web applications with ease About This Book Learn how to develop modular, scalable, maintainable, and adaptable web applications by taking advantage of TypeScript Create object-oriented JavaScript that adheres to the solid principles efficiently A comprehensive guide that explains the fundamentals of TypeScript with the help of practical examples Who This Book Is For If you are a JavaScript developer aiming to learn TypeScript to build beautiful web applications, then this book is for you. No prior knowledge of TypeScript is required. What You Will Learn Learn the key TypeScript language features and language runtime Develop modular, scalable, maintainable, and adaptable web applications Create object-oriented code that adheres to the solid principles Save time using automation tools like Gulp and Karma Develop robust applications with testing (Mocha, Chai and SinonJS) Put your TypeScript skills in practice by developing a single-page web application framework from scratch Use the JavaScript of tomorrow (ES6 and ES7) today with TypeScript In Detail TypeScript is an open source and cross-platform typed superset of JavaScript that compiles to plain JavaScript that runs in any browser or any host. It allows developers to use the future versions of JavaScript (ECMAScript 6 and 7) today. TypeScript adds optional static

types, classes, and modules to JavaScript, to enable great tooling and better structuring of large JavaScript applications. This book is a step-by-step guide that will get you started with TypeScript with the help of practical examples. You start off by understanding the basics of TypeScript. Next, automation tools like Grunt are explained followed by a detailed description of function, generics, callbacks and promises. After this, object-oriented features and the memory management functionality of TypeScript are explained. At the end of this book, you will have learned enough to implement all the concepts and build a single page application from scratch. Style and approach This is a step-by-step guide that covers the fundamentals of TypeScript with practical examples. Each chapter introduces a set of TypeScript language features and leads the readers toward the development of a real-world application.

Looks at the principles and clean code, includes case studies showcasing the practices of writing clean code, and contains a list of heuristics and "smells" accumulated from the process of writing clean code.

The Good Parts

JavaScript Enlightenment

Clojure for Data Science

Pro TypeScript

Typescript Succinctly

Introduction to JavaScript Object Notation

***Learn the essentials and more of TypeScript, a popular superset of the JavaScript language that adds support for static typing. TypeScript combines the typing features of C# or Java with the flexibility of JavaScript, reducing typing errors and providing an easier path to JavaScript development. Author Adam Freeman explains how to get the most from TypeScript 4 in this second edition of his best-selling book. He begins by describing the TypeScript language and the benefits it offers and then shows you how to use TypeScript in real-world scenarios, including development with the DOM API, and popular frameworks such as Angular and React. He starts from the nuts-and-bolts and builds up to the most advanced and sophisticated features. Each topic is covered clearly and concisely, and is packed with the details you need to be effective. The most important features are given a no-nonsense, in-depth treatment and chapters include common problems and teach you how to avoid them. What You Will Learn Gain a solid understanding of the TypeScript language and tools Use TypeScript for client- and server-side development Extend and customize TypeScript Test your TypeScript code Apply TypeScript with the DOM API, Angular, React, and Vue.js Who This Book Is For JavaScript developers who want to use TypeScript to create client-side or server-side applications***

***How often do you hear people say things like this? "Our JavaScript is a mess, but we're thinking about using [framework of the month]." Like it or not, JavaScript is not going away. No matter what framework or "compiles-to-js" language or library you use, bugs and performance concerns will always be an issue if the underlying quality of your JavaScript is poor. Rewrites, including***

*porting to the framework of the month, are terribly expensive and unpredictable. The bugs won't magically go away, and can happily reproduce themselves in a new context. To complicate things further, features will get dropped, at least temporarily. The other popular method of fixing your JS is playing "JavaScript Jenga," where each developer slowly and carefully takes their best guess at how the out-of-control system can be altered to allow for new features, hoping that this doesn't bring the whole stack of blocks down. This book provides clear guidance on how best to avoid these pathological approaches to writing JavaScript: Recognize you have a problem with your JavaScript quality. Forgive the code you have now, and the developers who made it. Learn repeatable, memorable, and time-saving refactoring techniques. Apply these techniques as you work, fixing things along the way. Internalize these techniques, and avoid writing as much problematic code to begin with. Bad code doesn't have to stay that way. And making it better doesn't have to be intimidating or unreasonably expensive. Cranked helps teams and organisations to effectively deliver software in a changeable or uncertain environment. This book will teach you all about the values, activities and practices that you need to know to delight your customers with your software product. With the techniques in this book you can: - Improve product quality - Release faster and with less errors - Focus on value - Deliver more features - Increase motivation and job satisfaction - Make your customers and end-users happy If you are already working in an agile or lean team, Cranked could accelerate you to the next level. If you are switching to agile or lean - Cranked will help you to avoid common problems in failed agile adoptions. Cranked can be used in any size of organisation to solve complex software development problems.*

*Fullstack D3 and Data Visualization*

*Programming Language Explorations*

*HTML5 Canvas*

*Making Your JavaScript Applications Scale*

*A Practical Guide Using C#*

*Speaking JavaScript*