



The
Pragmatic
Programmers

Become a Great Engineering Leader

Build Effective Skills
to Lead and Grow

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Introduction

Often readers can skip past the introduction of a book because they are eager to get right into the first chapter. However, I dare you to be a little different: take a moment to pause and reflect on what brought you to this moment in time. What led you to be reading this specific sentence in this specific book? *Why* exactly are you here?

Think about it for a second. In fact, in true British fashion, I am encouraging you to put the kettle on, make a cup of tea, and mentally rewind through your career journey so far. How did you get into technology in the first place? What was your first job? Where are you *now*?

Perhaps you are looking to this book to act as a map to guide you through your onward adventure. You may have recently been promoted into a senior management role. You might be managing multiple teams for the first time, wondering just *what it actually is* that you should be doing to be successful. We can help you with that. Maybe you are a seasoned manager but you are looking to sharpen the tools in your toolbox. We can help you with that too. Or perhaps you have seen that headhunting email saying that you'd be a perfect fit for a VP engineering role at a new startup, and you want to know what you are getting yourself into. Guess what? We've got you covered. Always.

And get this: even if you are an individual contributor trying to understand how to progress to staff engineer and beyond, there is a *lot* to be gained from gaining deep knowledge of those that are above you in the org chart. Understanding *what* they do, *how* they do it, and *why* they do it can unlock your potential to be even more impactful in your role. After all, you need to understand the playing field to be able to master the game.

No Improvisation, No Gatekeeping

Some history. Nearly four years has passed since I wrote my first book, [*Become an Effective Software Engineering Manager \[Sta20\]*](#). It was a book that materialized from writing a weekly blog, starting way back in 2017. I started the

blog a few years into my first management role as a way of better understanding the challenges that I was facing and what I was learning along the way: after all, as we'll cover later in this book, *writing is thinking*.

I was grateful and surprised that so many people found what I wrote to be practical and useful to them. I would receive emails from readers that said something that I wrote deeply resonated with their own thinking, or helped them analyze a specific problem that they were facing. It felt like there was a community of engineering managers out there that were all trying their best to apply the same scrutiny, best practice and care to their craft as individual contributors do to their code, but, comparatively, there was a lack of resources to help them do so.

As a result of these interactions with readers of my blog the first book was born. It is a complete hands-on guide to running a team, designed from the bottom-up to assume no prior knowledge of management, and to take the reader on a journey from the first day of their new role through to being confident and successful. As of the time of writing, more people have read that book than I will likely ever meet in my lifetime, which is both humbling and awesome. It's probably one of the most rewarding things I've accomplished: I think it, along with other great books in our collective canon, has helped lift the floor on our profession, leaving it in a better place than when we joined it. The boy scout rule applies here too: we should leave the campsite in a better condition than when we found it.

There was a principle that I kept in mind when writing that book, and it's one that I've kept in mind when writing this one too: *no improvisation, and no gatekeeping*. Back then I wrote that the problem with management, especially in the technology industry, is that many of us that become managers and leaders haven't been planning to do so for our whole lives.

Often we got into technology through our passions and interests, whether they were realized by building our first ever website, or by working out how to build simple applications on our home computers. We were drawn to the craft of software engineering, and we honed that craft either through formal education, or hands-on apprenticeship, or both.

Then, through a combination of preparation, opportunity, and a unique talent, we realized that we could also be good at leading people, and we took the leap. But, unlike our path into software engineering, we were faced with far less resources to help us learn how to be good at it. Perhaps we even struggled to get on with our own managers, and we had no role models to look up to. Yet, despite all of this, we *don't need to improvise*. Many of the generalized

frameworks and tools that we need to be successful are easy to learn and understand, and can therefore be applied to our own unique situations. This book, like the last, is full of them.

And let's face it: some people may have said that management wasn't for people like us. Perhaps they said that it was for people that were a "different shape," or those that were more extroverted, or those that better fit the stereotype of the hot-blooded corporate executive. But that's not true *at all*. Management and leadership *is* for people like us. *There is no gatekeeping here*. Directors and VPs of engineering are not a special breed of human that you cannot ever become. They are just people who have had a unique mixture of preparation, opportunity, and a raw talent that has been honed over time. They come from all walks of life, and through many different career paths. And if you're aiming for one of those roles as you go on your journey, we'll help you align the crosshairs.

Random Walks

Getting a senior management role in the technology industry isn't entirely predictable. You can't necessarily preempt the opportunities that are going to come your way or whether you're going to be ready for them when they arrive. When I joined a small startup in 2011, I had no idea that I was going to be VP engineering by the time that I left: I was far more focused at the beginning on just *building* the product and making sure that it didn't blow up as we scaled. My executive position materialized over many years from a combination of growth, opportunity, a desire to push myself and learn new things, and, of course, a lot of hard work. Moving toward that role was a *random walk*: during each year the company evolved and so did I. Metaphorically, when the student was ready, the master appeared.

You too are in the middle of the random walk of your career. Could you have really predicted that you would be where you are now? Did you even know that your current company existed when you got your first job? Maybe it didn't exist at all. This isn't a bad thing. In fact, it's pretty rad. You have absolutely no idea where you are going to end up. Maybe an executive role is in your future, and maybe that future is only next year. It only takes one email to change *everything*.

Perhaps your company is going to become a growth rocketship and you will be in the cockpit when it happens. Maybe you'll be headhunted by a company that you've never heard of, and it will be an unbounded success and the best decision that you've ever made. Or maybe that will be the *next* one after that. You just don't know: that's the joy of random walks.

However, we know that you aren't roaming aimlessly. The fact that you picked up this book means that you are interested in honing your craft of leadership so that if your random walk stumbles upon a new opportunity, you'll have the confidence and the skills to take it on. That might be at your current company after a reorg lands you with multiple engineering teams to manage for the first time, or it might be a role at a smaller company with far larger scope and responsibility. Who knows? It's exciting.

Arming yourself with the tools and awareness of what is to come is the best way to prepare for the future. When you're ringing the bell at the New York Stock Exchange as VP Engineering of the hottest technology startup in the world, do cast your mind back to this sentence and spare a thought for the randomness of the walk that got you there.

Your Journey

You could be at numerous places in your journey right now. You could be an engineering manager running a team of individual contributors, wondering what the next step is for you on the management career track. After all, what is a senior engineering manager doing that you're *not*? Perhaps that step has already happened: you're now managing multiple teams and you're wondering how exactly to split your time and what to focus on. Perhaps you're interested in where you could be going in the years to come. What does it mean to be a VP of engineering, and how can you start learning those skills now so that you're prepared when your random walk takes you there?

In this book we're going to strip everything back and build our foundations from the bottom up. Forget the specifics of your company, and the minutiae of your day-to-day: this is bigger and more meaningful than that. This is a book about understanding how to be a great leader, which is built upon a solid understanding of organizations, management, people, and most importantly, *yourself*. After all, the leader that you are and will continue to be is something that this book will never be able to teach you, since it is you. We can't give you ten rules to follow to solve all of your problems; prescriptions are doomed to failure. However, we can help equip that future star (that's you) with all of the tools and insight that they need to forge their own path.

The book is written in such a way that it can be read from beginning to end, but you don't have to do that if you don't want to. Each chapter is a standalone piece of the whole spectrum of senior leadership, and you are more than welcome to jump around to the parts that interest you most. Generally speaking, the further the discussion is in the book, the more senior the role that it is aimed at. However, *all* of it can be useful to you, no matter where

you are in your journey. We hope that you keep your copy close to hand and dip into it again and again as you progress through your career.

The Outline of This Book

The first part of the book is *The Role Defined*, where we are going to lay out the scaffolding for everything that follows. In *VP, Director, What?*, we'll define the senior roles to help you understand both the scope and what is expected of you as you progress in your management career. Then, in *Your Place in the Org Chart*, we'll look at common structures of organizations and how those roles operate within them.

We'll move on to the second part of the book, which will fill up your toolbox with ideas. It's called *Tools, Techniques and Time*. Starting with *Time: Observed, Spent, and Allocated* we'll orient your view toward the long term and understand how to use your time and energy efficiently and effectively. Building on our long-term view, in *The Games We Play and How to Win Them* we'll explore finite and infinite games and how they apply to you, your team, and your company.

No managers are effective without key individual contributors to partner with, and we explore how to get the most out of this relationship in *The Sharpest Tool in Your Toolbelt*. Another key relationship is the one that you have with your peers, and *The Tragedy of the Common Leader* looks at why this can be a tragedy of the commons and how to mitigate it.

Managing upward is also key, and we explore the creation of symbiotic relationship with your manager in *Of Clownfish and Anemone* that benefits both of you. Symbiotic relationships aren't limited to the engineering org chart, so we'll explore *Trifectas, Multifectas, and Allies* and see why collaboration and accountability is not just limited to front-line teams.

Being an effective leader is also about being heard and understood, and in *Communication at Scale* we set up a communication architecture for your organization and help you understand how to use it effectively. The final chapter in this part, *Performance Management: Raising the Bar*, hones in on the performance management of senior staff.

In the final part of the book, *Strategy, Planning and Execution*, we sit atop the strategic mountain and look around at the landscape. We start with *Strategy 101*, where we'll dive deep into the creation of a strategy and how to communicate it. Then, in *Company Cycles*, we'll look at the repeating cycles that companies loop through in order to implement their strategies, and how to line engineering up with them. Next, in *Money Makes the World Go Round*,

we'll look at everything to do with money: how to manage large budgets, how it fits into the wider financial picture of a company, and how to wield money confidently and effectively.

The technology industry goes through periods of *Boom and Bust*, and this chapter will help you understand what it means to lead through peacetime and wartime. Finally, in *Tarzan Swings from Rope to Rope*, we'll come right back to what we just mentioned in this introduction: how to navigate the random walk of your career, and how you might need to go down a few vines to get to where you want to be in the end.

So, What's Next?

OK! That's it. Time to start. I'm really excited to be on this journey with you. Thank you for deciding to come along with me. I sincerely hope that this stack of physical or digital paper is insightful, entertaining, and helps you to be the best leader that you can be.

Similar to the first book, I wish I had all of this information when I started moving up the management ladder. Often it's a lonely place with fairly weak signals of what it means to do a good job. The pages ahead are the culmination of taking notes all the way along my own random walk, and I hope that it helps makes your walk that much better.

It's time to get going. There's a video call that you're late for, so hurry up and join!