

PHILLIP L. WYLIE

KIM CRAWLEY

THE PENTESTER BLUEPRINT

STARTING A CAREER AS AN ETHICAL HACKER

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The Pentester Blueprint

Starting a Career as an Ethical Hacker

Phillip L. Wylie
Kim Crawley

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I dedicate The Pentester Blueprint to my wife Tiffany and daughter Jordan. Without your love and support, this would not have been possible. As always you support me in my endeavors, encouraging me every step of the way.

—Phillip L. Wylie

To my loving rock musician boyfriend Jason, my stuffed animal family for assuring me of the rest that I need in order to work effectively, and my late father Michael Crawley for encouraging my very early interest in computers and raising me to write for a living.

— Kim Crawley

About the Authors



Phillip L. Wylie is the Lead Curriculum Developer for Point3 Federal, Adjunct Instructor at Dallas College, and The Pwn School Project founder. Phillip has over 23 years of industry experience in disciplines ranging from system administrator, network security engineer, and application security engineer. He has spent the last eight-plus years as a pentester. During his pentesting career, Phillip has performed pentests of networks, wireless networks, and applications, as well as red team operations and social engineering.

Phillip started his career in pentesting as a consultant, where he spent his first five years. These years gave him experience in various environments for Fortune 500 companies in a broad range of industries. Phillip has a passion for mentoring, educating, and helping others. His passion for education and the cybersecurity community motivated him to start teaching and to found The Pwn School Project, a monthly educational meetup focusing on cybersecurity and ethical hacking. His education efforts, however, expanded beyond the classroom and The Pwn School Project. He can be found routinely giving presentations and teaching workshops at cybersecurity conferences.

Phillip teaches Ethical Hacking and Web Application Pentesting at Dallas College in Dallas, TX. Phillip is a co-host for The Uncommon Journey podcast. Phillip has an associate degree in Computer Networking and holds these cybersecurity certifications: CISSP, NSA-IAM, OSCP, and GWAPT. During his system administrator career, Phillip attained these industry certifications; Microsoft MCSE for Windows NT 4.0 and Windows 2000, Novell CNE, and Cisco CCNA.



Kim Crawley is dedicated to researching and writing about a plethora of cybersecurity issues. Some of the companies Kim has worked for over the years include Sophos, AT&T Cybersecurity, BlackBerry Cylance, Tripwire, and Venafi. All matters red team, blue team, and purple team fascinate her. But she's especially fascinated by malware, social engineering, and advanced persistent threats.

Kim's extracurricular activities include running an online cybersecurity event called DisInfoSec and autistic self-advocacy. When she's not working, Kim loves JRPGs (especially the Persona series), trying to cook Japanese and Korean dishes, goth music and fashion, and falling down Wikipedia and TV Tropes rabbit holes.

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—Phillip L. Wylie

I'm tremendously grateful to Phillip Wylie for inviting me to collaborate with him on *The Pentester Blueprint*. Phil developed a great Pentester Blueprint curriculum, which he has perfected while teaching it in workshops and schools

across the United States. This book brings that curriculum to the masses while adding some of my own ideas. Many, many ethical hackers have been born from Phil's generosity with his expertise! Phil, you've been a pleasure to work with, and I look forward to working with you again on future projects.

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— Kim Crawley

Contents at a Glance

Foreword	xvi
Introduction	xviii
1 What Is a Pentester?	1
2 Prerequisite Skills	17
3 Education of a Hacker	43
4 Education Resources	55
5 Building a Pentesting Lab	65
6 Certifications and Degrees.	83
7 Developing a Plan	105
8 Gaining Experience	115
9 Getting Employed as a Pentester	137
Appendix: The Pentester Blueprint.	149
Glossary	155
Index	167

Contents

Foreword	xvi
Introduction	xviii
1 What Is a Pentester?	1
Synonymous Terms and Types of Hackers	2
Pentests Described	3
Benefits and Reasons	3
Legality and Permission	5
Pentest Methodology	5
Pre-engagement Interactions	7
Intelligence Gathering	7
Threat Modeling	7
Vulnerability Analysis	7
Exploitation	8
Post Exploitation	8
Reporting	8
Pentest Types	9
Vulnerability Scanning	10
Vulnerability Assessments	10
Pentest Targets and Specializations	11
Generalist Pentesting	11
Application Pentesting	11
Internet of Things (IoT)	12
Industrial Control Systems (ICS)	12
Hardware and Medical Devices	13
Social Engineering	13
Physical Pentesting	13

Transportation Pentesting	14
Red Team Pentesting	14
Career Outlook.	14
Summary	16
2 Prerequisite Skills	17
Skills Required for Learning Pentesting	18
Operating Systems.	18
Networking	19
Information Security	19
Prerequisites Learning	19
Information Security Basics.	20
What Is Information Security?	21
The CIA Triad.	22
Security Controls	24
Access Control	26
Incident Response	28
Malware.	30
Advanced Persistent Threats.	34
The Cyber Kill Chain	35
Common Vulnerabilities and Exposures	36
Phishing and Other Social Engineering	37
Airgapped Machines	38
The Dark Web	39
Summary	40
3 Education of a Hacker	43
Hacking Skills	43
Hacker Mindset	44
The Pentester Blueprint Formula.	45
Ethical Hacking Areas	45
Operating Systems and Applications	46
Networks.	46

- Social Engineering 47
- Physical Security 48
- Types of Pentesting 48
 - Black Box Testing 49
 - White Box Testing 49
 - Gray Box Testing 50
- A Brief History of Pentesting 50
 - The Early Days of Pentesting 51
 - Improving the Security of Your Site by Breaking into It. 51
 - Pentesting Today 52
- Summary 53
- 4 Education Resources 55**
 - Pentesting Courses 55
 - Pentesting Books 56
 - Pentesting Labs 60
 - Web Resources 60
 - Summary 64
- 5 Building a Pentesting Lab 65**
 - Pentesting Lab Options 65
 - Minimalist Lab 66
 - Dedicated Lab 66
 - Advanced Lab 67
 - Hacking Systems. 67
 - Popular Pentesting Tools. 68
 - Kali Linux. 68
 - Nmap 69
 - Wireshark. 69
 - Vulnerability Scanning Applications 69
 - Hak5 70
 - Hacking Targets 70
 - PentestBox. 70

VulnHub	71
Proving Grounds	71
How Pentesters Build Their Labs	71
Summary	81
6 Certifications and Degrees	83
Pentesting Certifications	83
Entry-Level Certifications	84
Intermediate-Level Certifications	85
Advanced-Level Certifications	87
Specialization Web Application Pentesting Certifications	88
Wireless Pentesting Certifications	90
Mobile Pentesting Certifications	91
Pentesting Training and Coursework	91
Acquiring Pentesting Credentials	92
Certification Study Resources	99
CEH v10 Certified Ethical Hacker Study Guide	100
EC-Council	100
Quizlet CEH v10 Study Flashcards	100
Hacking Wireless Networks for Dummies	100
CompTIA PenTest+ Study Guide	101
CompTIA PenTest+ Website	101
Cybrary's Advanced Penetration Testing	101
Linux Server Security: Hack and Defend	101
Advanced Penetration Testing: Hacking the World's Most Secure Networks	102
The Web Application Hacker's Handbook: Finding and Exploiting Security Flaws	102
Summary	102
7 Developing a Plan	105
Skills Inventory	105
Skill Gaps	111
Action Plan	112
Summary	113

8	Gaining Experience	115
	Capture the Flag	115
	Bug Bounties	123
	A Brief History of Bug Bounty Programs	124
	Pro Bono and Volunteer Work	125
	Internships	126
	Labs	126
	Pentesters on Experience	126
	Summary	135
9	Getting Employed as a Pentester	137
	Job Descriptions	137
	Professional Networking	138
	Social Media	139
	Résumé and Interview Tips	139
	Summary	148
	Appendix: The Pentester Blueprint	149
	Glossary	155
	Index	167

Foreword

I'd say the most coveted positions in cybersecurity and information technology as a whole are roles as penetration testers, or *pentesters*, also known as *ethical hackers*. I want to emphasize the ethical part of that last sentence. There are many that go down the path of self-study, trying to get into the field, who end up crossing the line into unethical and even illegal behavior.

Remember always to use your superpowers for good. Funny enough, when people find out that I'm an ethical hacker, many ask me to break into something for them. They also ask how they can learn what I know so that they can get a cool job. I certainly will point them to two books that I co-authored with Jennifer Jin, *Tribe of Hackers: Cybersecurity Advice from the Best Hackers in the World* and *Tribe of Hackers Red Team: Tribal Knowledge from the Best in Offensive Cybersecurity*, both published by Wiley in 2019, to which my friends Kim Crawley and Phillip Wylie contributed.

If I were to point someone trying to get into this line of work, I'd most certainly point them to Phillip Wylie. Phillip is the only person I know that can teach you how to break into a company ethically for security purposes and to have wrestled a bear and lived to talk about it. Like many of our backgrounds, Phillip's was unique and something that should be embraced. There is no one correct path to be a penetration tester.

Phillip continues to pay it forward by helping tons of people to learn about ethical hacking and volunteering hundreds of hours helping people learn. You will learn a lot from this book, and I'm going to ask you a favor: Please pay it forward and help someone else by teaching them something that you already know or learn from this book which can help them out.

I just want to thank Phillip for being such a blessing to so many people. I hope you learn a lot or even fill in some blanks in your knowledge. I wish you an abundance of success on your journey.

Marcus J. Carey
Creator of Tribe of Hackers Series

Introduction

The Pentester Blueprint was born from ethical hacker Phillip Wylie's excellent pentesting curriculum of the same name. Whether or not you're able to attend one of the many workshops and classes that Phil gives every year, this book will teach you not only how to become a pentester but also how to become a successfully employed pentester! By reading this book, you have started the journey on your ethical hacking career. The future looks bright for you!

How I Became a Pentester

“My journey to becoming a pentester started with my first IT job as a system administrator. In my previous career as a draftsman, I learned about the system administrator role. It intrigued me and seemed more interesting that creating drawings on AutoCAD. I taught myself how to build computers and about a year later I took a certified NetWare engineer (CNE) certification course and learned the Novell NetWare network operating system. Not long after completing the course I got my first system administrator job and spent a little over six years in that IT discipline. I got interested in information security three years into my system administrator career and later moved into a network security role at the company where I worked. One and a half years later I became part of a newly formed two person application security team. I got to learn how to use web application vulnerability scanners and learned about penetration testing, which became my next career move. Almost seven years later I was part of a layoff and was fortunate enough to land my first penetration testing job working as a consultant for a cyber security consulting company. That was the start of my eight and a half penetration testing career.”