

The background is a vibrant blue with a subtle, repeating pattern of circuit board traces and circular nodes. A central black rectangular box with rounded corners contains the title and author's name in white text. The title is in a large, bold, sans-serif font, and the author's name is in a smaller, all-caps, sans-serif font below it.

# A BRIEF INTRODUCTION TO CAPTURE-THE-FLAG

REBECCA REID

# WHAT ARE “CTF”S AND WARGAMES?

- Capture the Flag (CTF)
  - Find secrets hidden in purposefully vulnerable programs or websites.
  - Competitors vs platform
- Wargame
  - Exploit or defend a vulnerability in a system
  - Gain or prevent access to a system
  - Competitors vs Competitors
- Usually friendly competitions
  - Sometimes with monetary prizes



# RECOMMENDED INSTALLATIONS

- [Kali Linux](#)
  - Linux distribution that includes many common hacking tools
- Disassemblers/Decompilers ([Ghidra](#))
  - Analyzing binaries (.exe)
- Debuggers ([Pwndbg for GDB](#))
  - Analyze program flow
- Web Tools ([Burp Suite](#), [Wireshark](#))
  - Network analysis/packet injection
- Programming (Python, [pwntools](#))
  - Cryptography, reverse engineering
- Fun stuff? ([stegosuite](#))
  - They hide text in images as strings??

# PLATFORMS

- <https://ctftime.org/>
  - Calendar/platform for most popular CTFS
- <https://capturetheflag.withgoogle.com/>
  - They have cool Christmas challenges every december
- <https://overthewire.org/wargames/>
  - Accessible either by download or strictly over ssh
- <https://picoctf.org/>
  - lots of writeups! Geared towards beginners
  - Competition only once a year, but can access year round for practice
- <https://tryhackme.com/>
- <https://hackthebox.com/>

# HOW DO I GET STARTED

- Google is your best friend
- Select challenges for your own skill base
  - Categories
    - OSINT (open-source intelligence), Web, Reversing, Forensics, Pwn, Cryptography
  - Difficulties
- Find a team to compete with
  - Both for variety of skillset and morale
- Read writeups
- Practise!



# WRITEUPS

- Most competitions have a writeup portion once the event ends
  - Can be for prizes as well
- Players write their approach towards a challenge, successful or not
  - Most made public!
- Recommendations:
  - <https://picoctf.org/> (lots of writeups!)
  - <https://ctftime.org/writeups>

# DEMO

- <https://app.hackthebox.com/starting-point>

The background is a dark blue gradient. In the corners, there are white line-art graphics resembling circuit boards or neural networks, with lines connecting to small circles.

# BONUS

- Cyberpocalyse preview?