

Zeyu (Zayne) Zhang

contact@zeyu2001.com | zeyu2001.com | www.linkedin.com/in/zhang-zeyu

EDUCATION

University of Cambridge

Oct. 2023 – 2026 (Expected)

B. A. (Hons) in Computer Science

Cambridge, England

- **Grade: 1st Class.** Highest mark for Object-Oriented Programming. Top 5 in: Databases, Discrete Mathematics, Machine Learning & Real-world Data, Software & Security Engineering.
- Cybersecurity Society: Secretary (2024/25) – Represented the University in various international competitions.
 - * 1st place at pwnEd5 finals, hosted by the University of Edinburgh.
 - * 2nd place at the global finals of LakeCTF 2024, hosted by the Swiss Federal Institute of Technology Lausanne.
 - * 3rd place at European finals of CSAW CTF 2023, hosted by New York University.
- Hughes Hall May Ball Committee – Developed www.hughesmayball.co.uk and managed domain. *React · TailwindCSS*
- Hughes Hall IT & Infrastructure Officer (2024). Singapore Society Database Officer (2024/25)

EXPERIENCE

Open Government Products

Jun. 2024 – Present

Software Engineer Intern

Singapore

- Working on the organization's GitOps access control solution, which replaces previously ClickOps-heavy HR workflows.
- Shipped a Next.js app to visualize and preview changes to access control policies, reducing human error.

Jane Street, Macquarie

Mar. 2024 – Apr. 2024

First-Year Trading & Technology Programme, Technology Spring Insight Programme

London, United Kingdom

Cure53

May 2023 – Present

Freelance Security Engineer

Berlin, Germany (Remote)

- Performed 15+ code audits and VAPTs for [global clients](#). Communicated findings to technical & non-technical audiences.
- Targets included web applications, browser extensions, Electron-based desktop applications, and mobile applications.

TikTok

Apr. 2023 – Sep. 2023

Security Engineer Intern

Singapore

- Discovered 50+ security vulnerabilities affecting critical internal and external facing services, such as TikTok.
- Developed Java extension on Burp Suite's new Montoya API for testing protobuf over both WebSockets and HTTP(s), a feature not supported by any open-source extension at the time of development.
- Wrote and deployed to K8s a deliberately vulnerable application in React.js and Express.js used as part of an internal competition.
- Researched at scale: Protobuf over WebSockets, XSS filter bypasses, and rich text editor vulnerabilities.
- Weaponised a 0-day in an online word processor to harvest employee credentials in a red team operation.

HACKATHONS & PROJECTS

[Echo](#) | *Next.js · TailwindCSS · Vercel · Reddit, Twitter API + OAuth*

- Most Promising AI x Web3 Build, 1st Prize @ Encode Club London AI Hackathon 2024
- Social media aggregator that provides personalised feed for users to regain control of their social media algorithms.

[EduAble](#) | *Next.js · TailwindCSS · PostgreSQL · Vercel · OpenAI API*

- 2nd Place @ Cambridge Generative AI Hackathon 2024, Finalist @ Fitzelerate 2024
- STEM notetaking app with real-time audio transcription to Markdown & LaTeX, and AI-generated summaries & quizzes.

[Ambrose](#) | *TypeScript · React · TailwindCSS*

- 1,200+ downloads.
- Chrome extension that automatically answers trivia questions and reminds users of pending trivia quizzes in an online game.

[Zeno](#) | *TypeScript · Express.js*

- Finalist @ STACK the Codes Hackathon 2022
- Security middleware for Express.js that protects against injection attacks, application-level DoS, SSRF and IDOR vulnerabilities.

[Charlotte](#) | *Flask · PostgreSQL · React*

- Most Impactful Award @ Tech For Good Festival 2021
- Chrome extension that helps people with disabilities and the elderly to navigate the web with ease by providing accessibility improvements.

PROFESSIONAL HIGHLIGHTS

Cybersecurity Vulnerability Research & Bug Bounty

2022 – 2023

- Uncovered web security vulnerabilities in popular open-source software. Credited for 15 vulnerabilities in the CVE database.
- Performed penetration tests for global companies through the HackerOne platform, uncovering > 50 valid security issues.
 - * Achieved maximum lifetime signal-to-noise rating across multiple private & public programs, with zero invalid reports.
 - * Competed against top hackers from around the world and emerged as top bug bounty hunter in the invite-only Ministry of Defense Bug Bounty Programme 2022 and GovTech Government Bug Bounty Programme 2023.

Cybersecurity Competitions

2022 – 2023

- Founded Social Engineering Experts, the top Singapore computer security Capture the Flag (CTF) team in 2022 and 2023.
- Core member and web security player for Blue Water, the global top CTF team in 2023. Finalist @ DEF CON 31-32 CTF.
- Led organization of SEETF, a global competition with >2,000 players and near-perfect public voting scores in 2022-23.
- Built cybersecurity challenges attempted by thousands of players in competitions and on platforms such as Hack The Box.

TECHNICAL SKILLS

Languages: TypeScript · Python · Java · OCaml · Go · SQL · L^AT_EX

Frameworks: React · Next.js · TailwindCSS · Prisma · Flask · Django

Developer Tools: Git · Docker · Vagrant · Google Cloud Platform · Kubernetes · Unix

Cybersecurity Certifications: OSCP · OSWE · CRT · Burp Suite Certified Practitioner