

# JAYDEN KOH

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👤 **Citizenship:** U.S. Citizen

## EDUCATION

### Texas A&M University

**Expected Graduation: May 2027**

*Bachelor of Science in Computer Engineering, Minor in Mathematics*

*GPA: 3.75*

## RELEVANT COURSEWORK

Data Structures & Algorithms, Computer Systems, Computer Architecture, Software Engineering, Electrical Signals & Systems, Communications & Cryptography, Embedded Systems Security, Differential Equations, Linear Algebra

## SKILLS

Linux, Windows, C/C++, Java, Bash, TypeScript, Javascript/Node.js, Python, SQL, HTML/CSS, Shell, Git/GitHub, GDB, RISC-V, Docker, Kubernetes, CMake/Makefiles, Vim, Tmux, Computer Microarchitecture, Zero-Knowledge Proofs, Solidity

## EXPERIENCE

### TAMU Cybersecurity

**May 2025 – Present**

*Software Developer*

*College Station, Texas*

- Scaled platform infrastructure using **Docker and automated deployments** for CTF competitions, **supporting 300+ teams**.
- Integrated **web3 infrastructure** with existing CTF framework supporting Solidity smart contracts for the Ethereum blockchain.

### Secure and Trustworthy Hardware Lab

**Aug 2024 – Present**

*Hardware Security Researcher*

*College Station, Texas*

- Published paper discovering 6+ **system-level vulnerabilities** on RISC-V processors, contributing to responsible disclosure.
- Integrated hardware simulation software with hardware fuzzing framework for **open-source processors** on the Chipyard toolchain.
- Developed software architecture for **hardware acceleration** utilizing **zero-knowledge proofs**, improving hardware performance.
- Curated **hardware vulnerability database** alongside data collection framework for a **Retrieval Augmented Generation LLM**.

### MIT Lincoln Laboratory

**May 2023 – Aug 2024**

*Instructor*

*Boston, Massachusetts*

- **Led a team of 8 instructors**, mentoring students to complete **30+ labs on embedded security**, increasing completion rate to 150%.
- Directed 16 teams to develop a **secure remote firmware service** with an A/D CTF competition, increasing deployments by 200%.
- Designed **15 hands-on educational projects and labs** including AES padding oracle attacks, GDB dynamic reversing, assembly stack manipulation, common RSA exploits, SHA length extension attack, buffer overflows techniques, etc...

## PROJECTS

### CTF Organizer | *Cybersecurity, Blockchain, Docker, Kubernetes* | [Link](#)

- Founded, organized, and hosted numerous annual online CTF tournaments, supporting over **1000 teams** across **30+ countries**.
- Maintained and managed **live production infrastructure** during competitions, ensuring system stability and resolving timely issues
- Authored multiple **reverse engineering, cryptography, and blockchain challenges** for various prestigious competitions.

### ComSec Rankings | *React, Middleware Architecture, Cloud Service* | [Link](#)

- Developed academic **cybersecurity data visualization platform** tracking research trends, guiding future projects and papers.
- Collected and parsed **20+ years of open-source publications** to rank universities and companies by research performance.

### Ethernaut Writeups | *Solidity, Ethereum, Security Audit* | [Link](#)

- Developed exploits for **25+ Ethereum smart contract** challenges using Solidity, improving the security of decentralized apps.
- Engineered and analyzed **exploit scenarios** including reentrancy, flash loan exploits, signature replay, proxy misconfigurations, liquidity manipulation, ABI edge cases, and compiler version mismatches, deepening understanding of **smart contract security**.

### TAMUhack 1st Place | *React, NoSQL, Web Serial Communication* | [Link](#)

- Won 1st place for “Best Medical Hack” by leveraging **hardware design** with software for a medical solution with real-world impact
- Developed **prescription distribution solution** integrating patient-side dispenser with pharmacist-side **automation service**.

### LangGuessr! Game | *React, Dynamic API Integration* | [Link](#)

- Developed a web-based language identification game leveraging content from **300+ Wikipedia language domains**.
- Engineered a **dynamic data pipeline** to source authentic, human-written text, ensuring linguistic diversity and **content integrity**.
- Deployed a **scalable, cloud-based production system** with load balancing, delivering **low-latency responses** and high availability.

### TAMU Datathon 1st Place | *React, Blockchain, Zero-Knowledge Proofs* | [Link](#)

- Won 1st place for “Best Use of Midnight” by architecting a **secure blockchain solution** with the most creative design.
- Engineered a decentralized application **leveraging zk-SNARKS** on the Midnight blockchain, maintaining **platform integrity while ensuring voter confidentiality** through zero-trust architecture.