

Jeriah Yu

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EXPERIENCE

- Roblox** Software Engineer Feb 2025 - Present
- Network Reliability Systems, Physical Networking, Infrastructure
- Capital One** Associate Software Engineer Aug 2024 - Jan 2025
- Internal Services, Financial Services Technology
- UT Department of Computer Science** Undergraduate Course Assistant Jan 2024 - May 2024
- Led discussions, office hours, and exam prep, and wrote and graded exam questions for Algorithms & Complexity.
- Jump Trading** Software Engineer Intern Jun 2023 - Aug 2023
- Implemented blockchain RPC support to gateway system account balancer.
- Developed greenfield encryption library with end-to-end encrypted file transfer system PoC using Go and WASM.
- Designed and built high-throughput SSH activity analyzer and log parser with Teleport, Clickhouse, and Grafana.
- Raytheon Technologies** Senior Vulnerability Research Intern May 2022 - Aug 2022
- Developed MIPS shellcode exploits against modified home router web service.
- Worked on customer contract team to reverse engineer and exploit commercial network switch.
- UT Applied Research Laboratories** Student Technician Jun 2021 - May 2022, Aug 2022 - Dec 2022
- Developed applied reinforcement learning agent proof-of-concepts for internal use with OpenAI Gym.
- Optimized performance in internal acoustic sonar simulation engine in MATLAB, reducing runtime by 10%.
- Researched adversarial attacks against sonar classifiers and defense methods with [report](#) and [poster](#) presentation.

EDUCATION

- University of Texas at Austin** Aug 2021 - Dec 2023
BS Computer Science (Turing Scholars Honors), BS Mathematics (Department Honors) With Honors (3.95 GPA)
Coursework in cryptography, concurrency, compilers, operating systems, security, and formal methods.
- [Attribute-based Oblivious Message Retrieval](#): Honors research thesis on private attribute filtering using FHE.
- [Parallel NTT](#): Investigated negacyclic convolution and GPU parallelization for number-theoretic transforms.
- [Kernel-Bypass Networking](#): Analyzed performance differences between user, kernel, and kernel-bypass web servers.
- [Autonomous Drifting](#): Developed control mechanisms for high-speed robot car in low traction environments.
- [Energy Demand](#): Research on power grid demand with time-series forecast models to adjust for climate seasonality.

ACTIVITIES

- UT Programming Contest** Part-time Problem Contributor Jan 2025 - Present
- Wrote competitive programming problems for contests.
- UTCS Cryptography Group** Undergraduate Researcher Jan 2023 - May 2024
- Developed private filtering functionality in Oblivious Message Retrieval using lattice fully homomorphic encryption.
- Mentored 10 undergraduate peers each semester in the Directed Reading Program.
- Information and Systems Security Society** Engineering and Corporate Officer Dec 2021 - May 2024
- Wrote problems and [writeups](#) for monthly CTF competitions and annual [UTCTFs](#) with 25% YoY rating increase.
- Developed relationships with corporate sponsors and organized networking events and guest talks.
- ATX Science Olympiad** Tech Director Aug 2021 - April 2024
- Developed cloud scoring system to enable parallel scoring, data loss prevention, and automation.
- Led and delegated back office automation projects with a team of 6 technology volunteers.
- Longhorn Rocketry Association** Electronics Team Lead Jan 2022 - May 2023
- Constructed flight computer for 2-stage vehicle and worked on custom controller PCBs & RTOS for active stability.

CREDENTIALS AND DISTINCTIONS

AWS Certified [Solutions Architect](#), DEFCON CTF Qualifier, Hack-A-Sat Finalist, [National Cyber Scholar with Honors](#), UT [College Scholar](#), CyberPatriot [National Finalist](#), AIME Qualifier

SKILLS

ARM, C, C++, CUDA, Coq, Clojure, Cryptography, Dafny, Docker, Ghidra, Git, Golang, GPGPU, Grafana, Java, Kubernetes/Nomad, MIPS, Python, QEMU, RISC-V, SQL, Verilog, Vulnerability Research, x86, Z3