Owen Thomas

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EDUCATION

Tufts University, Medford, MA   Expected May 2025
Bachelor of Science in Computer Science and Religious Studies
GPA – 3.97, *Dean's List all semesters, Ben Hescott Award for Excellence in Teaching (CS Department, 2025)*
Susan Feigenbaum Memorial Prize in Judaic Studies (ILCS Department, 2023)
Relevant Courses: Intro to Computer Science, Data Structures, Machine Structure and Assembly Language Programming, Algorithms, Internet-scale Distributed Systems, Reasoning and Agents (taken at the University of Edinburgh), Intro to Security, Programming Languages, Computation Theory, Concurrent Programming, Calc III, Proof-based Discrete Math, Linear Algebra

EXPERIENCE

Tufts JumboCode, Medford, MA
Software Developer   *September 2024 – Present*
- Developing a web-app to collect feedback, store receipts, and process report cards for A2Empowerment, a nonprofit providing women in Cameroon with mentorship and scholarships
- Meet weekly with team for standup, code review, and sprint planning

Tufts University Department of Computer Science, Medford, MA
Teaching Fellow/Teaching Assistant for Intro to Computer Science   *September 2022 – Present*
- Lead weekly lab sessions for 40+ students on C++ topics, such as recursion, pointers, and BSTs
- Conduct office hours 3 times/week, support students working through programming challenges, debugging code, and developing understanding of key topics
- Create and manage office hours schedule for 35+ TAs. Coordinate grading of HW and exams.
Co-Course Instructor for Teaching Computer Science   *June 2024 – Present*
- Teach mandatory course for new TAs in the CS department along with Professor Megan Monroe
- Develop and execute a series of 2.5-hour lectures on necessary skills to be a TA
Teaching Assistant for Internet-scale Distributed Systems   *September 2024 – December 2024*
- Teach students concepts about the design of the World Wide Web
- Hold office hours to debug TCP- and UDP-based distributed programming projects

Applied Invention, Cambridge, MA
Software Engineer Intern   *June 2024 – August 2024*
- Developed tools in Rust for testing packet routing and internal commands for Zero-trust Packet Routing (ZPR), a project designed to make networks more secure
- Wrote Lua dissectors and used Wireshark to analyze packet traffic
- Wrote GitHub runners in YAML and pre-commit hooks in Bash to ensure correctness of code

SKILLS

Languages: C, C++, Rust, Python, HTML, CSS, PDDL, Lua, Git, JavaScript, Erlang, x86 Assembly
Software, Tools and Methods: Wireshark, OOP, UDP and TCP/IP systems, GitHub, Linux, Netcat

PROJECTS

File Copy (C++)
- Implemented a UDP-based client/server program that copied all files in a source directory to a target directory on the server machine. Implemented an end-to-end check to ensure correctness
- Created original packet structure necessary for sending file information

RPC (C++, Python)
- Created a Python program that generated C++ client and server files that perform Remote Procedure Calls of functions from a client to server given an IDL file
- Program TCP based transmission, supported functions involving arrays, strings, structs, chars, void functions, and integers, and any combination of those data types

Universal Virtual Machine (C)
- Created a virtual Universal Turing Machine that had registers, memory segments, and a program counter and could execute programs with all 14 Universal Machine instructions