Tyler Lentz

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Computer Science Student and Team Leader

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I am a student team leader at UCSD studying Computer Science, looking to gain experience in software engineering and apply my knowledge from relevant courses and club work.

SKILLS

Languages (Proficient)	C++, C, HTML/CSS/JavaScript, Rust, Python
Languages (Familiar)	Go, React, Svelte, Java, SQL
Tools	Linux, Docker, Git, Github, CMake
Miscellaneous	Technical Writing, Communication, Leadership, Agile

EXPERIENCE

Software Team Lead | Triton UAS Sept 2020 — June 2021 (member) | June 2021 — Present (lead)
UCSD *La Jolla, CA*

- Co-leads a subteam of 10+ student members to prepare computer vision, path planning, and networking software for an autonomous plane to compete in the annual AUVSI Student Unmanned Aerial Systems Competition.
- Placed 5th overall out of 71 teams in the 2022 competition.
- Co-authored a technical paper which was rated 16th out of 71 teams in the 2022 competition
- Delegates tasks, coordinates with other subteam leads, and fosters a productive working environment.
- Mentors new members to teach skills necessary to contribute.
- Managed and developed a fullstack "Ground Control Station" web app using React and Go that provides an interface to monitor and manage the autonomous mission.
- Managed and developed a C++ program to run on an onboard computer, which plans paths, controls the camera, identifies targets with ML models, and communicates with the Ground Control Station.

CSE Department Tutor | CSE 120: Operating Systems January 2024 — March 2024
UCSD *La Jolla, CA*

- Hired as an official CSE department tutor for an undergraduate operating systems course for the 2024 Winter Quarter.
- Duties include holding lab hours to help students understand concepts and programming assignments.

PROJECTS

Ectochat December 2023 — Present
- LAN-based chatting app, developed in Rust using the Tauri framework with Svelte.
- Utilizes the TCP and UDP protocols to communicate over a local network
- Hosted on Github

EDUCATION

BS in Computer Science, *UC San Diego* June 2024 (expected)

- Current Cumulative GPA of 3.914.
- Relevant coursework:
  - CSE 190: **Working With Large Codebases**. Learned tools and techniques to effectively understand and contribute to large codebases. Topics covered included IDE shortcuts and tools, diagramming, unit testing and testing coverage, Git and Github, code review, and more. Concepts were applied in a group project aimed at developing a self-selected feature for the open source CPython IDLE codebase.
  - CSE 110: **Software Engineering**. Learned and applied Agile software development to develop an Android app in a group of six.
  - CSE 120: **Principles of Computer Operating Systems**: Learned the principles of operating systems, including kernel structure, timesharing, scheduling, synchronization and virtual memory.
  - CSE 123: **Computer Networks**. Learned the principles of computer networks. Concepts included network layering, TCP/IP, ARP, IP Tables, routing, and more. Designed a simple router to interface with a simulated network that implemented longest prefix matching.
  - CSE 142: **Introduction to Computer Architecture: A Software Perspective**. Learned how to effectively utilize modern compture architecture to improve program performance. Topics covered included memory hierarchy, caching, virtual memory, and parallelism.
  - CSE 134B: **Web Client Languages**. Learned the essentials of front-end web development, from HTTP, semantic HTML, CSS, to JavaScript. Developed a personal resume site using these technologies.
  - CSE 135: **Online Database Analytics Applications**. Learned back end web development with an emphasis on data analytics. Configured an Apache web server and explored web analytics with practical, hands-on experience.
  - CSE 132A: **Database Systems Principles**. Learned principles behind relational database systems and SQL.