

Lawrence Tseng

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Education

University of Massachusetts Amherst, Amherst, MA — GPA: 3.97 *EXPECTED GRADUATION: MAY 2023*

Bachelor of Science in Computer Science, *College of Information and Computer Sciences*

Bachelor of Business Administration in Management, *Isenberg School of Management*

Organizations: Treasurer of the Cybersecurity Club, Career Developer at CICS Careers, UMass ACM

Coursework: Data Structures, Algorithms, Operating Systems, Artificial Intelligence, Networks, New Ventures

Experience

Liberty Mutual Insurance — Software Engineering Intern (TechStart) *SUMMER 2021*

- Modernized an iOS app from Objective-C to Swift 5 & SwiftUI 3 with a redesigned user interface
- Improved accessibility features by supporting larger text and refining VoiceOver (text-to-speech)
- Designed a Spring Boot (Java) and MySQL backend on AWS for collecting and managing user feedback
- Won 1st place and the “Technical Excellence” award for a centralized carpooling app built with SwiftUI and AWS services at the Intern Hackathon, competing against 23 other teams

Savant Systems — Software Engineering Intern *SUMMER 2019, 2020*

- Developed a scalable Python & Web framework to automate manufacturing quality control tests for the “Multistat” thermostat and “Smart Host” products with an intuitive user interface and streamlined procedure
- Reduced the testing time by 8 minutes per thermostat, increasing the maximum production throughput 5x
- Redesigned UI elements and layout constraints for an iOS app to conform to a consistent, cross-platform design, improving the user experience for iPad users

ClearMotion — Software Engineering Intern *SUMMER 2018*

- Produced MATLAB and Python scripts for translating vehicle signals into a comprehensible format for stakeholders to further the software development of the active suspension product
- Designed an iPhone app using Swift for collecting, graphing, and analyzing accelerometer sensor data to research correlations between smartphone sensors and previous ground truth measurements

Westwood Robotics — President *2017–2019*

- Founded a 501(c)(3) organization to create local robotics programs to engage K-12 students in STEM, establishing non-profit bylaws and articles of organization with the Commonwealth of Massachusetts

Projects

UMassCTF '21 (Capture the Flag) Competition Infrastructure (2021) <https://ltseeng.me/umassctf>

- Deployed a global weekend-long cybersecurity competition platform on Google Cloud with load balancing for over 2000 participants across 60+ countries while maintaining 100% platform uptime

Discord Role Bot (2020) <https://ltseeng.me/discord>

- Created a Typescript & Deno server that communicates with Discord’s REST API, authenticated by OAuth2

Awards

HackUMass VIII Hackathon Winner – Best Use of Google Cloud, Runner Up – Best Venture Pitch (2020)

- Project AiPPAREL, a custom made-to-order clothing and accessories brand using artificial intelligence
- Integrated neural style transfer software into a NodeJS backend server with a mobile-friendly client

UMassCTF '20 (Capture the Flag) Competition 1st Place Winner (2020)

Skills

Languages & Tools: JavaScript, Swift, Python, Java, HTML, CSS, C, Git, Jira, Xcode

Platforms & Frameworks: REST, NodeJS, iOS, SwiftUI, Bootstrap, Arduino, UNIX, Google Cloud, Docker