

Lawrence Tseng

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Education

University of Massachusetts Amherst, Amherst, MA — **GPA: 3.94** EXPECTED GRADUATION 2023

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

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

Organizations: UMass ACM, Cybersecurity Club, CICS Discord Moderator, Information Fusion Lab @ CICS Data Science

Coursework: Data Structures, Discrete Math., Comp. Systems, Economics, Fin. Accounting, Calc. I–III, Linear Algebra

Skills

Languages & Tools: Swift, JavaScript, Python, HTML5, CSS, C, Java, MySQL, MATLAB, Git, Photoshop, Illustrator

Platforms & Frameworks: iOS, REST, Bootstrap, NodeJS, Express, React, Arduino, macOS, UNIX, Agile, Jira

Experience

Savant Systems, Hyannis, MA — Software Engineering Intern SUMMER 2019, SUMMER 2020

- Developed a scalable Python/web framework to automate manufacturing quality control tests for the Multistat thermostat lineup, cutting the required time by 8 minutes/unit (80% reduction) and increasing the production throughput by 500% with an intuitive user interface and streamlined procedure
- Redesigned UI elements for an iOS application to conform to a consistent, cross-platform, corporate design
- Introduced a Swift library to replace conflicting layout constraints which improved the user experience on iPads

ClearMotion, Woburn, MA — Software Engineering Intern SUMMER 2018

- Produced MATLAB and Python scripts for translating vehicle signals into a comprehensible format for other 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 pre-existing calibrated measurements
- Followed an Agile-Waterfall hybrid model for project management with daily standup meetings and rigorous monthly task planning to ensure internal deadlines were met

Westwood Robotics, Westwood, MA — President SEPT 2017–JUNE 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
- Employed new channels of marketing and outreach programs, achieving a 25% increase in sponsorship and a 15% increase in donations from live demonstrations, social media posts, and email campaigns
- Administered and deployed GSuite (Google) services and Slack to streamline emails and documents

Projects

Website Portfolio (2020) <https://Itseng.me/portfolio>

- Integrated a URL routing and resource server into my website using Express and NodeJS to collect basic user session information and simplify external links

FIRST® Robotics Competition Robot (2019) <https://Itseng.me/robotcode>

- Assembled ultrasonic sensors, IMUs, PID controllers, and Computer Vision routines for robot self-navigation
- Designed a responsive website with dynamic blog posts to showcase community efforts

Electric Skateboard (2017) <https://Itseng.me/skateboard>

- Constructed an electric skateboard and developed an iPhone bluetooth app to control an on-board Arduino

Awards and Publications

FIRST® Dean's List Finalist (2018), **President's Volunteer Service Award** (2014–2018)

Kim, A., [and 12 others, including Tseng, L.] (2018). "Genie: A Secure, Transparent Sharing and Services Platform for Genetic and Health Data." arXiv:1811.01431. (<https://Itseng.me/genie>)