Tyler H. Lin

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Education

Georgia Institute of Technology | Atlanta, GA — Aug. 2021 – May 2024
Bachelor of Science in Computer Science — *GPA 4.00*

- **Coursework:** Design and Analysis of Algorithms, Objects and Design, Systems and Networks, Computer Organization and Programming, Data Structures and Algorithms

Experience

Georgia Tech Professional Education | Atlanta, GA — Jan. 2022 – Present
Application Development Student Assistant

- Developed an app to expedite employee ramp-up by presenting onboarding checklists to employees and team progress to managers while integrating permissions/tasks with Office/Outlook using Microsoft Power Fx
- Scripted the migration of 1.5 TB of data from file shares to Microsoft SharePoint by intelligently renaming and restructuring files and folders using Windows PowerShell to abide by OneDrive path restrictions

MathWorks | Natick, MA — May 2022 – Aug. 2022
Software Engineering Intern

- Instrumented the ThingSpeak IoT analytics platform with Prometheus metrics to observe 30+ million API requests/day and generated 10+ Grafana visualizations using PromQL queries to reveal excess request trends
- Conceived, implemented, and tested design changes for a Rails API controller action that handles 300+ requests/sec., resulting in a 40% increase in max throughput and 70% decreases in p99 and max latencies

The Johns Hopkins University Applied Physics Laboratory | Laurel, MD — Sep. 2019 – Aug. 2021
Software Engineering Intern

- Simulated 10+ min. combat maneuvers of army battalions consisting of 400+ soldiers each using Python to evaluate wireless network connectivity between units and optimize communication strategies during battle
- Engineered a PoC patient medical record database with a Bootstrap UI backed by a Hyperledger Fabric distributed ledger using Java contracts to assess blockchain as a basis for interoperable health records

Projects

Attendance for Google Meet™ | *JavaScript, HTML, CSS* — 2020 – Present

- Open–source Google Chrome extension with over 30,000 users from more than 100 countries
- Automates attendance tracking in Google Meets by identifying and proxying specific obfuscated internal Meet functions using JavaScript to unobtrusively and efficiently aggregate participant data
- Integrates an accessible Material Design UI into the Meet layout that enables users to view and sort attendance, create and edit class rosters, and export organized logs to Google Sheets using the Sheets API
- Awarded a Featured badge by the Google Chrome Web Store team for "follow[ing] [their] technical best practices and meet[ing] a high standard of user experience and design"

The Puzzled Cube | *Java, Node.js, Express.js, SQLite* — 2021

- Puzzle platformer video game made using Java Swing that features 24 levels of increasing complexity, 3 unique power-ups, and custom graphics, animations, and audio
- Features a global leaderboard connected to a secure SQLite database using an Express.js RESTful API
- Won the 2021 Maryland FBLA Computer Game and Simulation Programming Competition

Skills

Languages: JavaScript (ES12), HTML, CSS, Java, Ruby, C#, Python, Bash, PowerShell, SQL, LaTeX

Tools: Git, Node.js, Vue.js, Ruby on Rails, Docker, Linux, Splunk, Prometheus, Gatling, Unity, Raspberry Pi

Concepts: Object–Oriented Programming, Functional Programming, TDD, CI/CD, MVC, HTTP, REST, Agile