Liwen Tran

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EDUCATION

Johns Hopkins University — May 2025
BS, Computer Engineering, Computer Science — GPA: 3.80

SKILLS

Languages	Python, Java, C, C++, Golang, MATLAB, SQL, Assembly, JavaScript
Technologies	Kubernetes, GitHub Actions, AWS Cloud Development Kit, SolidWorks, Revit, Figma, Adobe Suite
Certifications	AWS Developer Associate, AWS Certified Solutions Architect, AWS Certified Cloud Practitioner

WORK EXPERIENCE

Citadel, Equity Quantitative Research — New York, NY
Software Engineering Intern — *June 2024 – Aug 2024*

· Designed and implemented a suite for end-to-end testing that improved the availability and reliability of all services, composing of a gRPC pytest plugin, isolated branch environment deployment, and a decentralized synthetic monitoring platform.

Datadog, Cloud Cost Management – Optimization — Janurary 2024 – April 2024
Software Engineering Intern — *New York, NY*

· Developed self-generating, actionable recommendations for customers to reduce their cloud infrastructure cost as part of the Cloud Cost Management product. Recommendations are generated from ingested usage data and predict their monetary impact.
· Scoped, desgined, and built an end-to-end, distributed service to process & serve cloud pricing data with **Golang** + **Kubernetes**.

Citadel, Equity Quantitative Research — June 2023 – Aug 2023
Software Engineering Intern — *New York, NY*

· Standardized monitoring practices in their centralized service framework to increase reliability and speed up root cause analysis of their procution services trough the programmatic generation of monitors, service level objectives, and health checks.
· Utilized **Python** + **Datadog** and designed **CI/CD** to automate the deployment of version-controlled monitors and SLOs

Amazon Web Services (AWS), National Security Professional Services — May 2022 – Aug 2022
Cloud Consultant Intern — *Herndon, VA*

· Developed an automated **DevSecOps** pipeline that hardens configurable **machine images** for **National Security** customers.
· Architected and coded a distributable, serverless cloud solution with **AWS Cloud Development Kit**, **Python**, and **AWS Cloud Services**, specializing in Lambda, S3, EC2, CloudWatch, Step Functions, DynamoDB, and more.

CFR Engineering Consultants, Inc, Germantown, MD — Sep 2020 – Jul 2021
Electrical Engineering Intern

· Designed electrical distribution, lighting, and fire alarm systems for construction projects using **Revit** + **AutoCAD**. Constructed programmatic, 3D models of components for **Building Information Modeling** and made power load calculations.
· Built a database management system with **MS Access**, using **VBA+SQL**, that supports CRUD operations on **2000+** projects.
· Performed data analytics and created a dashboard to visualize working hours of teams and employees using **MS PowerBI**.

University of Maryland, MIND Lab: Building Analytics — Mar 2021 – Jun 2021
Research Assistant

· Optimized energy and functionality by modeling **IoT** data from building sensors and actuators with **Python** and **Pandas**.

AWARDS

Optiver: Women in Tech & Trading Fellow — Apr 2023

· Chosen as part of 20 women to gain insight into innovative trading systems and high-preforming technologies.

Copycat: ML-Driven Mobile Game to improve Social Communication — Sep 2022

· Won **1st Place** and **Bloomberg's Philanthropic Award** at HopHacks (40 teams). Architected and built the entire **AWS cloud backend** to process images with **deepface**, a facial attribute analysis framework, integrated with React and JavaScript.

inJourna: ML-based Mental Health Improvement App for Inpatients — Sep 2021

· Placed **"Runner Up"** and won the "Most Innovative Venture Award" at HopHacks (184 participants). Designed the **UI/UX** in **Figma**, devised the branding (visual identity, consistent theme, and logo), and built an engaging landing page.