Liwen Tran

Baltimore, MD — 240-498-6786 — liwentran@gmail.com — github.com/liwentran — linkedin.com/in/liwentran/

EDUCATION

Johns Hopkins University   May 2025
BS, Computer Engineering, Computer Science, Applied Mathematics & Statistics.   GPA: 3.80

SKILLS

Languages	Python, Java, C, C++, MATLAB, SQL, Assembly, JavaScript
Technologies	Git, AWS Cloud Development Kit, Unix/Linux
Software	SolidWorks, Simulink, Revit, AutoCAD, Adobe Suite, PowerBI, Figma
Certifications	AWS Developer Associate, AWS Certified Solutions Architect, AWS Certified Cloud Practitioner

WORK EXPERIENCE

Citadel, New York, NY   June 2023 - Present
Software Engineering Intern

· Standardizing monitoring of production services on the Equity Quantitative Research (EQR) Engineering team by integrating the programmatic generation of monitors, service level objectives, and health checks into the team's centralized service framework.
· Utilized Python & Datadog and designed SDLC to automate the deployment of 1000+ version-controlled monitors and SLOs across 70 services running on Kubernetes and the cloud.

Amazon Web Services (AWS), Herndon, VA   May 2022 - Aug 2022
Cloud Consultant Intern

· 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.
· Committed **950+** lines of CDK code and presented **7** demos to stakeholders while incorporating their feedback.
· Facilitated and participated in daily stand-ups and weekly sprints in an **agile** environment.

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

· Designed electrical distribution and lighting systems for new and renovation construction projects using **Revit** and **AutoCAD**. Performed power load calculations and designed fire alarm systems.
· Constructed flexible 3D models of electrical components for **Building Information Modeling** projects to increase consistency and reduce review time through programmatic settings.
· 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**.

Montgomery County Government   Jun 2020 - Aug 2021
Recreation Department Tech Intern

· Initiated and ran a tech support program for seniors in the county (population 1M), serving **8,804** clients in the first 3 quarters.
· Increased internet connectivity by analyzing census demographic data and broadband survey data to target high-impact areas.
· Won the 2021 National Association of Counties Award in Information Technology and Parks and Rec.

PROJECTS

Optiver: Women in Tech & Trading Fellow   Apr 2023

· Chosen as 1 of 20 women across the US 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.