

Liwen Tran

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EDUCATION

Johns Hopkins University

BS, Computer Engineering, Applied Mathematics & Statistics.

May 2025

GPA: 3.8

SKILLS

Languages	Python, Java, C, C++, MATLAB, SQL, Assembly
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
Other	Agile Methodology, Mandarin Chinese, Spanish, Photography, Video Editing

WORK EXPERIENCE

Citadel, New York, NY

June 2023 - Aug 2023

Incoming Software Engineering Launch Intern

- Equity Quantitative Research Engineering team.

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 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 building functionality by modeling **IoT** data from building sensors and actuators with **Python** and **Pandas** to find relationships between data variables.
- Assembled notes for the lab after learning from expert guest speakers.

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

[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.