

Liwen Tran

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EDUCATION

Johns Hopkins University BS, Computer Engineering, Applied Mathematics & Statistics.	May 2025 GPA: 3.94
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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

Amazon Web Services (AWS), Herndon, VA <i>Cloud Consultant Intern</i>	May 2022 - Aug 2022
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- 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 <i>Electrical Engineering Intern</i>	Sep 2020 - Jul 2021
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- 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 <i>Research Assistant</i>	Mar 2021 - Jun 2021
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- 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 <i>Recreation Department Tech Intern</i>	Jun 2020 - Aug 2021
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- Initiated and ran a tech support program for seniors in the county (population 1M), serving **8,804** clients in the first 3 quarters.
- Created and taught a curriculum about the internet and technology for classes of up to 25 seniors.
- Increased internet connectivity in rural and low-income households efficiently by analyzing census demographic data and broadband survey data to target high-impact areas efficiently.
- Won the 2021 [National Association of Counties Award](#) in Information Technology and Parks and Rec.

PROJECTS

Copypcat: ML-Driven Mobile Game to improve Social Communication	Sep 2022
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- 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
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- 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.