

# Liwen Tran

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## EDUCATION

**Johns Hopkins University**  
BS, Computer Engineering, Applied Mathematics & Statistics.

May 2025  
GPA: 3.94

## SKILLS

|                       |  |
|-----------------------|--|
| <b>Languages</b>      | Python, Java C, C++, MATLAB, SQL   |
| <b>Technologies</b>   | Git, AWS Cloud Development Kit, Linux  |
| <b>Software</b>       | SolidWorks, Simulink, Revit, AutoCAD, Adobe Suite, PowerBI, Figma                            |
| <b>Certifications</b> | AWS Developer Associate, AWS Certified Solutions Architect, AWS Certified Cloud Practitioner |
| <b>Other</b>          | Agile Methodology, Mandarin Chinese, Spanish, Photography, Video Editing                     |

## WORK EXPERIENCE

**Amazon Web Services (AWS), Herndon, VA**  
*Cloud Consultant Intern*

May 2022 - Aug 2022

- 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**  
*Electrical Engineering Intern*

Sep 2020 - Jul 2021

- 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**  
*Research Assistant*

Mar 2021 - Jun 2021

- 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**  
*Recreation Department Tech Intern*

Jun 2020 - Aug 2021

- 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

**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.

**FIRST Tech Robotics Programming Team Lead**

Sep 2017 - Jan 2021

- Programmed with **Java** in Android Studio, implementing computer vision for object recognition with **OpenCV** to automate movement and PID controllers to improve accuracy and precision.