Catherine Truong

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Education

University of California, Riverside *Sept 2021 – June 2025*
Bachelor of Science in Computer Engineering

Coursework: AI Algorithms, Database Management Systems, Data Structures & Algorithms, Digital & Analog Signals, Discrete Structures, Electronic Circuits, Embedded & Real-Time Systems, Engineering Analysis & Design, GPU Computing & Programming (CUDA), Integration Design, Logic Design, Operating Systems, Software Construction

Experience

First American Financial *Santa Ana, CA*
Full-Stack Engineering Intern (Part-Time) *Sept. 2024 – Present*

- Upgrading **NuGet** dependencies and platform to **.NET 9.0**, ensuring compatibility with new features, optimizing existing code, and improving overall system performance
- Updated 3 unique **GitHub Pages** platforms to include documentation using **MkDocs**
- Enhanced an application for an automatic generation of update/release notes information found in Jira tickets through pipeline streamlining and various code implementations
- Presented a proof of concept, models, and technical documentation for new domain inheritance using AGILE

Backend Software Engineering Intern (Full-Time) *Jun. 2024 – Aug. 2024*

- Curated usage and optimization of AWS CloudWatch using Python to create an AWS Lambda function automated by EventBridge to **reduce costs by 78%** and the number of **unused log groups by 88%**
- Designed a filter to determine whether the log groups are necessary within 3 sec. maximum per log group
- Exported 4 different JSON files to an S3 bucket which kept track of **600+ updated log groups** despite success or failure to track the log groups' details dating back to 4 years' worth of unused data
- Automated the HTTPS-conditional security compliance of log group policies to **92%** of total S3 buckets

UCR Information & Technology Solutions *Riverside, CA*
Student Information Systems Intern (Part-Time) *Apr. 2023 – Sept. 2024*

- Managed and created queries through **CRM databases** for students and academic advisors using SQL
- Performed **2+** daily tests using an unreleased web application to optimize runtime and performance
- Developed **20+** internal/public facing documentation and updating existing documentation using HTML

Projects

⚪ **Smart Glasses (Intended for ADA)**

- Designed a pair of glasses with an **OLED screen** that displays output text via Raspberry Pi and Python
- Implemented **KNN algorithm** to determine the closest color match to live feed integrated camera
- Adjusted camera parameters based on the 3 colors of calibration images taken during camera setup
- Developed a learning model that can determine more complex colors via color sampling and charting using a .csv

Phone Gimble

- Designed and **3D printed** phone mount and handle, allowing for 3-axis movement and 270° range of motion
- Integrated **Arduino and FRDM-K64F** board using UART to have the communication between 2 systems
- Calibrated 3 **servo motors** to recognize joystick movement and respond to input with < 1 second latency

Skills

Management: Azure, Confluence, Jira, Microsoft Tools, Miro, ServiceNow, Visual Studio
Hardware/Software: Arduino, AutoCAD, AWS, Circuit Board Design, Docker, Git, Pytorch, TensorFlow
Programming Languages: C++, CSS, HTML, Java, JavaScript, MATLAB, **Python**, React, Swift, SQL
Tools: DMM, Oscilloscope, Power Supply, Signal (Function) Generator, Soldering Iron

Extracurricular

Theta Tau *Riverside, CA*
Vice President, Recruitment, Academics *May 2022 – Present*