Trieu Tran

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First-generation computer engineering student at Boston University with leadership experience and passion for growth.

EDUCATION

Boston University, *Boston, MA* ***Expected May 2025***

• BS in Computer Engineering, Concentration in Machine Learning

COURSEWORK AND SKILLS

Coursework: Senior Design, Software Engineering Principles, Full-Stack Development, Embedded Systems

Skills: C, C++, C#, Excel, Java, Javascript, MATLAB, Onshape (CAD), Python, Swift, Typescript, Verilog

RELEVANT WORK EXPERIENCE

Software Engineering Intern - Openprise ***June 2024 - Current***

• Deployed multiple LLMs via inference servers with SSL and API key authentication for company-wide client hosting, while automating the entire end-to-end process in Docker containers with bash scripts

• Collaborated with a team to create data transformation and processing tasks leveraging PySpark, Fugue, and SQL

• Implemented automated testing frameworks to ensure production-quality code for the company's web-based product

Student Technology Intern - Convent and Stuart Hall ***June 2020 - August 2022***

• Supported client systems engineers by managing, distributing, and troubleshooting educational resources and assets

• Became familiarized with MDM softwares such Jamf, licensing, and mobile package deployment

PROJECTS

HerdItHere: Labby Inc. ***September 2024 - Current***

• Designed an AI-powered identification system for a startup company leveraging a modified YOLOv11, PaddleOCR, and Hailo 8 accelerator to detect and identify cow ear tags for livestock management

• Reduced YOLOv11 to 2M parameters, speeding up inference by 28% with only a ~1.1% drop in mAP@0.5 and recall

• Authored a guide on optimizing YoloV11 with quantization and calibration for deployment in Hailo-8's .hef format

• Developed a multi-stage pipeline to preprocess data and retain regions of interest for object detection and OCR

Personal Indoor Robot Assistant: Smart And Connected Systems ***September 2024***

• Implemented headless firmware in C for ESP32, leveraging RTOS for interrupt-driven control of sensors and actuators

• Enabled client-server communication on ESP32 via I2C, UART, and WiFi, facilitating data exchange through sockets and hosting portable servers with Node.js, Streamlit, and TingoDB.

• Applied distributed systems principles, fault tolerance, and security, utilizing MOCAP for precise positioning

Automated Driving, PySuperTuxKart: Reinforcement Learning ***September 2024***

• Retrained a simulated cart using a custom PID controller, reducing steering error by 12% and lap times by 9%

• Enhanced neural network for trajectory planning, achieving 12% lower loss, and improved lap times across tracks

AreYouTrieulyFocusing…NET: Deep Learning ***May 2024***

• Accomplished robust face and body detection using Detectron2 to assess attention levels based on orientation and pose

• Modified and retrained Detectron2 for facial detection on the FDDB dataset, optimizing base accuracy by 12%

• Applied augmentation techniques, including Gaussian noise, blurring, and sharpening to enhance model training

Smart Bike Light: Intro to Design Engineering ***Fall 2022***

• Oversaw a small team as a project leader, assigning tasks while ensuring timely completion

• Devised, prototyped, and programmed a smart bike light adaptive to temperature, speed, and light conditions

• Utilized an LCD, RTC, Arduino Nano, Accelerometer, surface mounted LEDs, and I2C protocols

Gophur: Software Engineering ***Nov 2022***

• Constructed an iOS social media app employing Swift, SwiftUI, and Firebase for business-to-consumer interactions

• Led a small team to manage various aspects of full-stack application development

• Featured basic features such as an image feed, profile page, ability to message businesses, and schedule appointments