Sean Wang

Software Engineer

Quick learner and highly-motivated student in Computer Engineering, seeking full time job in a related field

669-262-0638

sean.x2.wang@gmail.com

www.linkedin.com/in/sean-wang4

San Jose, CA

EDUCATION

B. S. in Computer Engineering
Purdue University
Aug. 2019 - May 2023
GPA 3.83/4.00
Dean's List and Honors all semesters

M. S. in Computer Engineering
Purdue University
Aug. 2023 - Ongoing (Expected May 2024)

SKILLS

Programming Languages:
C++, Python, JavaScript, HTML, CSS, MatLab, Verilog

Frameworks, Databases, and SDKs:
React, Flask, SQLite, SQLAlchemy, TensorFlow Lite, OpenVINO

Development Tools:
GDB, Valgrind, VSCode, GitHub

Languages:
English (Native), Chinese (Advanced)

COURSEWORK

Data Structures, Signals and Systems, Object Oriented Programming in C++, Microprocessor Systems and Interfacing, Electrical Engineering Fundamentals I and II, Advanced C Programming, Python for Data Science, Computer Security, Artificial Intelligence, Operating Systems

EXPERIENCE

AI Intern
LatticeWork | San Jose, CA — May 2022 - Aug 2022

- Worked with the AI team to integrate AI acceleration chips into LatticeWork's Amber products
- Collaborated with internal teams to test and compare AI inferencing runtimes and accuracies
- Used TensorFlow Lite to create a set of APIs in C++ for OpenVINO to perform operations with corresponding AI acceleration USB (NCS2), such as initialization, inferencing, and retrieving results
- Developed web app using Python, React, Flask, SQLite, and SQLAlchemy to manage LatticeWork's NVR, which communicates with a partner company's (DeGirum) AI server through internal APIs in order to automatically identify and log license plates, and alert users when necessary

Software Engineering Intern
LatticeWork | San Jose, CA — May 2023 - Aug 2023

- Extended existing React web app by adding a feature to directly add an RTSP stream from any local IP, allowing increased flexibility in prospective database management, as well as direct control over snapshots, logs, and recordings of security feed
- Revamped code responsible for application's AI inferencing, including producing OCR license plate outcomes and generating the associated files and logs, resulting in quicker and more efficient inferencing and output generation
- Designed algorithm employing multithreading and object-oriented programming in Python to enhance the filtration of duplicate inferencing outputs, leading to more distinct recordings and streamlined outputs and improving efficiency and decreasing memory usage
- Successfully deployed the web app into production

Python Programming TA
Purdue University | West Lafayette, IN — Jan. 2022 - May 2022

- Conducted office hours to tutor students individually, effectively explaining programming concepts and reinforcing coding practices

PROJECTS

AiRender
Aug. 2022 - December 2022

- Headed project to create Bluetooth drawing device that can detect movements in air and replicate motions on a separate monitor
- Developed microcontroller code in C to interface with assortment of hardware components, including a Bluetooth chip (HM-19), 9-axis IMU, and LCD display
- Designed Python code to acquire data from hardware and visualize corresponding motions by integrating a Raspberry Pi with a display

Generative Inpainting AI
Aug. 2022 - December 2022

- Constructed a generative adversarial network (GAN) that can recognize and fill in holes in digital images
- Researched and implemented coarse-to-fine neural network architecture, then trained the network on reconstruction and GAN loss

Frogger
Aug. 2021 - December 2021

- Led team to develop Frogger by programming an STM32F091RCT6 to display game on 64x64 LED matrix
- Engineered frog movement and collision logic with hardware integration, and interfaced with I/O, DAC, and timers