

Shannen Lee

Mobile No.: 83636218 | Email: shannenlee21@yahoo.com

Personal Website: <https://shannen-portfolio-sandy.vercel.app/> | GitHub: <https://github.com/shannenlolol/>

WORK EXPERIENCE

DSO National Laboratories - Machine Learning Engineer Intern

July 2024 – Dec 2024

- Developed a hierarchical reinforcement learning system using Python with PyTorch to manage and coordinate multiple autonomous agents in a simulated environment to achieve complex objectives
- Designed and tested various state, observation, and reward settings to optimise agent behaviour and evaluate the effectiveness of hierarchical versus non-hierarchical approaches

Continental Automotive Singapore Pte Ltd - Software Engineer Intern

July 2023 – Dec 2023

- Led the development of a fleet management system for autonomous robots using Python with FastAPI and the ROS2 framework, leveraging Open Robotics' Middleware Framework (OpenRMF).
- Successfully integrated the system with a robot fleet for a last-mile delivery project and demonstrated it to key stakeholders, showcasing its practical deployment and effectiveness
- Streamlined deployment and improved application portability by using Docker for containerisation on AWS EC2 instances running Ubuntu Linux, facilitating a robust and scalable deployment process

AMARIS.AI Pte Ltd - Software Developer Intern

July 2022 – Dec 2022

- Utilised JavaScript with React for frontend development, and Python with FastAPI for backend development for an AI-powered web application
- Executed complex SQL queries using MariaDB to extract, manipulate, and analyse large volumes of data, resulting in more efficient and accurate data storage and retrieval processes, handled database migrations from development to staging environment

EDUCATION AND CERTIFICATIONS

Nanyang Technological University, Singapore

Aug 2020 – Dec 2024

Bachelor of Engineering (Computer Science) – GPA 4.15 / 5.0

AWS Certified Machine Learning Engineer - Associate, Amazon Web Services

May 2025

https://www.credly.com/badges/0fb77826-915f-4f24-91f7-ad6289124323/public_url

PROJECTS

Image Editor: <https://shannenlolol.pythonanywhere.com/>

- Web-based application built with Flask and Python that enables users to remove backgrounds, adjust image dimensions, and apply basic edits in real time via a simple and intuitive interface

Meal Macro Insights: <https://github.com/shannenlolol/grocery-guru>

- Web-based application that allows users to upload meal images and receive real-time macronutrient breakdown and health insights, and developed using React, Tailwind CSS, and Vite, with a Firebase backend for secure authentication and real-time meal data storage via Cloud Firestore, and leveraging OpenAI's Vision API

GroceryGuru: <https://github.com/shannenlolol/grocery-guru>

- Cross-platform mobile app built with Flutter and Dart that enables users to manage grocery lists, compare prices, and sync data in real time using Firebase Authentication and Cloud Firestore

SKILLS

- Programming Languages: Python, Java, C, C++, JavaScript (with CSS and HTML5), Dart, SQL
- Frameworks: React, Flutter, FastAPI, Flask, Django, ROS2, TensorFlow, PyTorch
- Tools and Software: Git, Docker, AWS (S3, Athena, Lambda, SageMaker, EC2, ECR), Firebase, Linux CLI, Bash, GitHub, GitLab, Figma, RViz, Gazebo, Adobe Creative Cloud, Microsoft Office Suite