Shahrul Amin

Software Engineering Student (Universiti Putra Malaysia)

Results-driven software engineer specializing in machine learning, web and mobile app development, and UI/UX design.

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Work Experience

Nov 2024 - Present
Seri Kembangan, Malaysia

UI/UX Lead
Google Developer Groups UPM

- Conducted an event on designing and prototyping using Figma for university students from five universities.
- Collaborated with a company UI designer to organize a workshop on industry-standard UI/UX design practices.
- Designed and prototyped the Google Developer Groups on Campus UPM website.

Aug 2024 - Oct 2024
Taoyuan City, Taiwan

Machine Learning Research Intern
National Science and Technology Council, Taiwan

- Conducted object detection on UAV images and video frames using datasets such as PASCAL VOC, DOTA, and VisDrone.
- Utilized deep learning libraries in Python, including PyTorch and TensorFlow, to build and modify model architectures.
- Applied state-of-the-art object detection techniques like YOLO (YOLOv8, YOLOv3), Faster R-CNN, and SSD for accurate target identification.

Nov 2023 - Jul 2024
Seri Kembangan, Malaysia

Multimedia Manager
Software Engineering Club

- Designed visually compelling event posters to promote club activities and events, enhancing engagement and visibility.
- Managed and coordinated all technical aspects of club events, ensuring smooth operation of audio-visual equipment and digital presentations.
- Collaborated with club members to organize and execute successful events, including technical setup and troubleshooting.

Education

Oct 2022 - Present

Universiti Putra Malaysia
Bachelor of Software Engineering (Hons.)

CGPA: 3.66

Jul 2021 - May 2022

Kolej Matrikulasi Kejuruteraan Kedah
Electrical and Electronics Engineering

CGPA: 4.00

Jan 2019 - Dec 2020

MRSM Taiping
Physical Sciences

SPM: 9A's (5A+, 3A, 1A-)

Projects

Continual Object Detection

Tech Stack: Pytorch, Knowledge Distillation, Incremental Learning

• Implemented knowledge distillation to enable lifelong learning in detection models.
• Trained on datasets like PASCAL VOC, DOTA, and VisDrone, improving detection accuracy over time.
• Achieved 69.07% mAP while maintaining only a 6.37% forgetting rate on the initial class, ensuring minimal performance degradation.

Vehicle Counting Using YOLOv3 and SORT

Tech Stack: YOLOv3, SORT, Deep Learning

• Built a vehicle detection and tracking system using YOLOv3 for real-time applications.
• Integrated SORT algorithm to track and count vehicles across multiple frames.
• Able to identify peak hours at Universiti Putra Malaysia to support road planning efforts.

Portfolio Website Using React

Tech Stack: ReactJS, Tailwind CSS, GSAP

• Designed and developed a personal portfolio website showcasing projects, skills, and achievements.
• Implemented responsive UI/UX with Tailwind CSS for a modern, mobile-friendly experience.
• Integrated React components for interactive navigation and optimized site performance.

Skills

AI & ML	Software Dev	Programming	Tools
• Machine Learning	• Web Dev (React)	• Python	• Docker
• Deep Learning	• CI/CD (GitHub)	• Java	• Git
• Large Language Models	• GUI Design (Figma)	• C++	• VS Code
• Object Detection	• Backend (Firebase)	• MATLAB	• AutoCAD
• Data Mining	• Database (MySQL)	• Dart	• Eclipse
• Edge AI	• AI Integration (OpenVINO)	• JavaScript	• Arduino
			• XAMPP

Languages

• Malay - Native/Bilingual
• English - Native/Bilingual
• Pashto - Professional
• Hindi - Limited
• Chinese - Elementary
• Japanese - Elementary
• Arabic - Elementary