DARRICK AARON UNTARMAN

INFORMATION TECHNOLOGY WITH A SPECIALISM IN INTERNET OF THINGS (IOT)

CONTACT

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https://darr-02.github.io/Website-Portfolio/

SKILLS

- Arduino
- R
- C
- Python
- Java
- ESP32
- SQL
- PHP
- Raspberry Pi
- Web Dev (HTML, CSS, JavaScript)
- ASP.NET (C#)
- Flutter
- SolidWorks
- Ubuntu
- ROS 2

LANGUAGES

- English
- Hokkien
- Bahasa Indonesia
- Mandarin
- Bahasa Melayu

PROFILE

A motivated and passionate Internet of Things (IoT) student keen to expand new knowledge and experience. Proficient in Python, Java, HTML, CSS, Arduino. Strong problem-solving skill and analytical skills in university projects. A quick learner, adaptable, and eager to enhance high-quality work and professional skills.

EXPERIENCE

Technical Assistant Training - APU Oct 2024 - Dec 2024

- Assisting lecturers and students in resolving technical problems in classrooms and labs like software installation issue.
- Provided support and troubleshooting for teaching and learning such as projector issue.
- Collaborate in a team to solve computer-related problem.
- Hands-on experience in PC building, changing projector bulb, crimping network cables, and reimaging PCs during the workshop.

Crew member of APU Mega career fair - APU May 2025

- Participated as a member of the floor management team.
- Assisted with booth coordination and supported employer during the event.
- Monitored employer booths to ensure smooth operations and provided on-site assistance.

IoT Engineer Intern - Iotech Solutions June 2025 - November 2025

- Contributed to multiple IoT development projects during internship, including flood monitoring, AGV automation, and wearable data systems.
- Collaborated in circuit design, firmware programming, cloud configuration, and dashboard visualization.
- Conducted sensor calibration, debugging, and system testing for reliability and accuracy.

AWS Hackathon Finalist - Autonomous Guided Vehicle (AGV) Medical Inventory System October 2025

- Developed an IoT-based medical inventory and delivery system integrating robotics, cloud, and automation.
- Designed an autonomous AGV using SLAM (Simultaneous Localization and Mapping) for navigation and medicine transport.
- Built an automated servo-controlled medicine rack that dispenses medicine upon user request.
- Implemented real-time data management using AWS IoT Core and DynamoDB, with a cloud dashboard for monitoring stock and status.

CERTIFICATIONS

- Vice Chancellor's (VC) List for Academic Excellence
- Introduction to Networking (Cisco Network Academy)
- Introduction to IoT (Cisco Network Academy)
- JavaScript Essentials 1 (Cisco)
- AI Singapore (Meta)
- Network Security

REFERENCE

Dr Kamalanathan Shanmugam
Sr. Lecturer, Asia Pacific University
Email: kamalanathan@apu.edu.my

PROJECTS

Smart dustbin Internet of Things (IoT) project

- Smart dustbin is designed to improve the efficiency in waste management by touchless operation.
- Tools used in this project consisting of Ultrasonic sensor, Servo motor, Arduino Maker UNO, Battery, and Arduino IDE Software

Procurement Order Tracking System (POTS) -- Java

- Implementing Object-Oriented Programming (OOP) techniques in Java.
- Develop the administrator part such as using CRUD operation for user account management, create login page, and have access to all roles.

RFID Based Attendance System

- Developed an IoT-based attendance system using ESP32 as the main microcontroller.
- Implemented RFID (RC522) for user identification and integrated an I2C 16x2 LCD for display output.
- Configured Google Sheets as the cloud storage platform to record and manage attendance data automatically.
- Programmed and tested the system using Arduino IDE for real-time data transmission and logging.

Smart Flood Monitoring Weather Station

- Developed a real-time weather station for flood monitoring using ESP32 and Arduino Uno.
- Configured multiple sensors to collect temperature, humidity, rain amount, and water level distance.
- Implemented LoRa communication for long-range wireless data transmission.
- Stored all sensor data in Firebase Realtime Database for cloud storage.
- Designed a Flutter mobile dashboard to visualize live and historical data from the cloud.

Autonomous Medical AGV (Automated Guided Vehicle)

- Built an autonomous delivery robot using ROS 2 for hospital logistics.
- Implemented SLAM (Simultaneous Localization and Mapping) for real-time navigation and obstacle avoidance.
- Designed and deployed an inventory management dashboard integrated with AWS DynamoDB.
- Created REST APIs using AWS Lambda and API Gateway to connect the AGV system with the cloud database.
- Ensured reliable data synchronization and remote access to inventory status through web interface.

EDUCATION

Bachelor of Science in Information Technology with a specialism in Internet of Things (IoT)

2023-2026

School of Computing & Technology | Asia Pacific University
Cumulative GPA: 3.69 / 4.0