

MUHAMMAD AMMAR YASEER BIN AZIZAN

Beseri, Perlis | (+60) 13-525 3103 | ammar321an@gmail.com | www.linkedin.com/in/amm321an | <https://github.com/amm321an>

PROFILE

Engineering graduate with a strong foundation in Artificial Intelligence, specializing in Computer Vision and Object Detection. Skilled in developing robust ASPX web applications, programming, and managing databases, as well as building dynamic websites using Python and Laravel. Passionate about robotics and IoT, demonstrated through leading a team in the UTM CAPSTONE competition to innovate security solutions with advanced robotic systems. Committed to balancing technical expertise with a healthy, active lifestyle and a dedication to academic excellence. Ready to bring a unique blend of software development and robotics experience to new challenges.

EDUCATION

Bachelor of Engineering (Electrical - Mechatronics) With Honours

Universiti Teknologi Malaysia, Skudai, Johor Bahru

2020 – 2024

- Major: Computer Engineering and Software Engineering with a focus on Developing AI-Powered Robots
- GPA: 3.88
- Cumulative GPA: 3.49
- Relevant Coursework: Development of Web Systems, Implementation of AI in Robotics, Computer Vision, Object Detection, ASPX Web Applications Software Programming, Database Management, Python Programming, Laravel Framework

Computer Science

Matriculation Perlis, Arau, Perlis

2019 - 2020

- Cumulative GPA: 3.63

SKILLS

- **Programming Languages:** C++, C, C#, SQL, HTML, Java, Python, PLC
- **Software:** ROS2, Android Studio, Thonny, HeidiSQL, Raspbian, Windows, Atmel Studio 7, Quartus, Multisim, SolidWorks, WordPress, Visual Studio Code, Visual Studio 2022, MATLAB, Adobe, Microsoft (Word, Excel, PowerPoint)
- **Web Frameworks:** Django, Flask, ASP.NET, Laravel, MVC
- **Database Management:** MySQL, PostgreSQL, SQLite3, SQL Server (SSMS, HeidiSQL)
- **Embedded Systems:** Raspberry Pi, Arduino, ESP32
- **Tools and Technologies:** OpenCV, YOLO, Twilio API, CallMeBot API, Stripe, SecurePay
- **Languages:** Bahasa Malaysia (Native), English (Fluent)
- **Personal Skills:** Adaptability, Communication, Problem-solving, Time management, Teamwork, Attention to detail

WORK EXPERIENCE

Test Engineer & Programmer Intern

Jabil P8, Bayan Lepas, Pulau Pinang

July 2023 – October 2023

- Diagnosed and resolved issues with PCBA boards and testers.
- Developed an automated website for internal use, enhancing efficiency.
- Utilized C#, ASP.NET, MVC and SQL for website development.
- Queried and managed databases using SSMS and HeidiSQL.
- Integrated CSS and JavaScript for enhanced user interface and alerts.

PROJECTS

Nerf Turret-Inspired Garden Guardian: Computer Vision & IoT Monkey Deterrence (FYP)

June 2024

- Utilized Raspberry Pi 5 and Arduino Uno R4 for embedded systems.
- Implemented C++ for receiving commands from Raspberry Pi to trigger the speaker and control the algorithm.
- Used Python on Raspberry Pi to activate the camera and servo motor with OpenCV for object detection, and YOLO model training.
- Developed web interface with Flask for backend routing and HTML (five pages: login, register, dashboard, home, streaming), CSS, and JavaScript for monitoring and live streaming.

- Integrated SQLite3 for user data management and Twilio API for WhatsApp and email alerts.
- Employed I2C for LCD, PWM module, ADS module, and UART for serial communication between Raspberry Pi, Arduino, and DFPlayer Mini.

Building a Secure Web Application with Laravel: Integrating Payment Gateway

May 2024

- Developed front-end using HTML and CSS.
- Used PHP and Laravel framework for back-end routing.
- Managed MySQL database for user information storage.
- Integrated Stripe and SecurePay Sandbox for payment processing.
- Implemented email verification for enhanced security.

Agriculture Robot for Animal Deterrence with IoT (Capstone)

January 2024

- Utilized ESP32 and Arduino for embedded systems.
- Developed Android app using Java for remote control and monitoring.
- Implemented C++ for communication between ESP32 and DFPlayer Mini using UART.
- Managed user data with SQL using SSMS and HeidiSQL.
- Integrated IoT for real-time notifications and alerts using CallMeBot API for WhatsApp notifications when detecting animals with an ultrasonic sensor.

Introducing a Brand-New Fully Automated Web System for Jabil P8

October 2023

- Developed automated system using C#, HTML, and ASP.NET.
- Enhanced web pages with CSS and JavaScript for a better user experience.
- Queried and managed databases with SSMS for data accuracy.
- Designed system to automatically detect and display machine usage and cleaning schedules.

Applied Control Lab Automation - PLC and Design (Using GLOFA GM6 PLC) Factory Automation System (ED-4031)

April 2023

- Programmed GLOFA GM6 PLC to automate detection of metal vs. non-metal using ladder diagrams.
- Integrated and controlled sensors and actuators through PLC for a fully automated system.
- Optimized ladder logic for efficient sensor data processing and actuator response.
- Enhanced system reliability and accuracy by fine-tuning PLC control logic.

ACHIEVEMENTS & CERTIFICATION

- PCEP - Certified Entry-Level Python Programmer (2024)
- Top 30 Competitors in Universiti Malaya's Data Science Digital Race (2024)
- Dean's List for three semesters in UTM
- Certification of Participation from Kelas Programming (Laravel), Taming Tech Sdn Bhd (2024)
- Letter of recommendation from Jabil P8 Company for contributions (2023)

REFERENCES

Dr. Nurulaqilla Binti Khamis

Phone: (+60) 17-731 2605

Email: nurulaqilla@utm.my