

# Wuttikorn Jiraroongrojana

Graduate Software Engineer

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## OBJECTIVE

Graduate Computer Science student at Queen's University Belfast with hands-on experience building and shipping software across academic, personal, and industry projects. Comfortable working across the stack, learning new technologies quickly, and contributing to real products from day one. Enjoys solving practical problems, writing clean code, and working closely with others in fast-moving environments.

## EDUCATION

### Queen's University Belfast – BSc Computer Science

Northern Ireland, UK

Awarded International Office Undergraduate Scholarship x2 (2024-2025), (2025-2026)

Sep. 2023 – Jun. 2026

#### Modules

- Y3 - Computer Science Project: (**Dissertation**: Lane Mark Detection using Deep Learning for Autonomous Vehicles), Deep Learning, Video Analytics and Machine Learning, Cloud Computing, Network Security.
- Y2 - System Security and Cryptography (73%), Software Engineering and System Development (61%), Data Structure and Algorithms (81%), Theory of Computation (80%), Professional & Transfer Skills (70%).
- Y1 - Computer Architecture (73%), Object Oriented Programming (89%), Procedural Programming (75%), Circuit Principles 1 (83%) - 2 (61%), Digital System Design (85%), Database (63%), Engineering Math 1 (64%) - Math 2 (68%), Engineer Design and Practice (92%).

## TECHNICAL SKILLS

**Languages:** C/C++, Python, Java, JavaScript, HTML/CSS, Shell, MATLAB.

**Systems & Architecture:** Computer architecture fundamentals, Object-Oriented Programming, Agile/Scrum, Cloud Fundamentals, Security basics, microservice Architecture, Reverse Proxy Design

**Web & Application Development:** HTML/CSS, REST APIs, JSON

**Framework & Tools:** Docker, Flask, Node.js, Git, Gitlab CI, CI/CD Pipeline.

**Testing & Quality:** Junit, pytest, Jest, Unit & API testing, Test Planning, Software Documentation.

**ML & Data:** Model Evaluation, Parameter Optimisation, Confusion Matrix, Multi-scaling Image Processing.

**Databases** - MySQL, MongoDB

**Microsoft Office Suite** - Word, Excel, PowerPoint, Outlook

## WORK EXPERIENCE

### Full-Stack Web Developer Intern

Bangkok, Thailand

Proghurt Thailand

Jun. 2025 – Sep. 2025

- Designed, implemented, and debugged production software features end-to-end, ensuring reliability and data correctness using JavaScript and HTML/CSS.
- Design and implemented a secure admin blog management interface, reducing publishing time by 80%.
- Collaborate with stakeholders using Agile workflows and Git-based version control to deliver features on schedule.
- Debugged backend workflows, validated system behaviour, and ensured correctness under edge cases, documented issues, and ensuring reliable data flow.
- Automated email notifications for new customer enquiries, ensuring timely response within 24 hours.

### Server and Cashier (Part time)

Northern Ireland, UK

Thai Village

Nov. 2023 – Present

- Balanced part-time work alongside full-time study, demonstrating reliability, communication skills, and time management in a fast-paced environment.

## PROJECTS

### Dissertation – Computer Science Project – Python, OpenCV, Pytorch

Oct. 2025 – Present

Project Title: Lane Mark Detection Using Deep Learning for Autonomous Vehicles

- Designed and implemented a Python-based lane detection pipeline for autonomous driving scenarios using deep learning and computer vision techniques.

- Built and trained CNN-based models for lane marking segmentation, supported by image preprocessing steps including resizing, normalisation, and augmentation.
- Evaluated model performance using quantitative metrics and visual validation to assess accuracy, robustness, and generalisation across varying road conditions, lighting, and weather.
- Conducted structured experimentation to compare model configurations and preprocessing strategies, documenting findings to justify design decisions.

**QPC IP Checker** – Assessment Project – **Python, Node.js, Go, Rust, PHP, JavaScript, C# (.Net)** Nov. 2025 – Dec. 2025

- Designed and deployed a containerised multi-service application on Queen's Private Cloud with CI-driven unit and API Testing.
- Implemented a custom reverse proxy supporting dynamic configuration, health checks, service discovery, and automated failover.
- Improved the frontend with error handling, configuration, and multi-endpoint failover support.
- Debugged networking, timeout, and failure-handling issues at system level.

**Pedestrian Detection System** – Group Project – **MATLAB**

Nov. 2025 – Dec. 2025

- Built an end-to-end pedestrian detection pipeline including preprocessing, HOG feature extraction, PCA dimensionality reduction, and model training.
- Implemented and benchmarked SVM, K-NN, Nearest Neighbour Classifiers using precision, recall, F1-Score and confusion matrices.
- Developed a multi-scale sliding window detector with Non-Maximum Suppression, improving detection robustness across half-split and 5-fold cross validation.

**Finance Manager 2.0** – Personal Project – **Python**

May. 2025

- Automated transaction processing and categorisation, reducing manual data entry time by 60%.
- Integrated Google's Drive and Sheets APIs to manage 1,000+ transactions across 12 categories.
- Tested and documented rule-based transaction categorization logic, achieving 85% accuracy and improving overall data reliability.

**Engineering for People Design Challenge** – Group Project – **JAVA**

Jan. 2025 – Mar. 2025

- Collaborated in a six-person team to design a Java-based game system, applying object-oriented design and system modelling.
- Led Unit test using Junit, achieving 80% coverage and identifying 25+ issues early.
- Coordinated agile-style meetings, ensuring cross-functional teamwork and clear communication of findings.
- Presented complex findings clearly to teams, ensuring conclusions could be drawn from technical design.
- Created 8 use case diagrams and use case descriptions for system modelling, covering 95% of user scenarios.

## EXTRA CURRICULAR / ACHIEVEMENTS

**Selected Presenter – Reach'25 - Engineers Without Borders**

Apr. 2025

- Selected as 1 of 10 teams (out of 60) to present at Reach '25: Engineers Without Borders, in recognition of our innovative and community-driven solution addressing safety challenges in Johannesburg.

**Sustainability Hackathon - The Belfast Agenda**

Oct. 2024

- Worked in a team of 5 to tackle challenges related to city redevelopment, targeting a 20% increase in overnight stays and improved city safety.
- Researched and analysed datasets from OpenDataNI, contributing to our strategic approach with relevant insights.

**GE Aerospace Explore Digital Technology Virtual Experience Program on Forge**

Aug. 2024

- Completed a Vue.js UI development simulation for the Frontend Development Team, demonstrating proficiency in Vue SFC Playground.
- Applied Vue.js skills by adding features including headings, images, and dynamic variable displays. Implemented a compute button for efficient user interactions.
- Drafted clear technical requirements for a feature, suggesting optimal order times for plane parts.
- Explored strategies to align technical specifications with business requirements, ensuring effective solutions.

## SOFT SKILLS

Analytical Problem Solving, Teamwork & Collaboration, Willingness to Learn, Multitasking & Time Management, Feedback Oriented Mindset, Scrum Methodology Experience, Attention to Detail, Clear Communication