Kushal Thapa

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Objective

Computer Engineering graduate with hands-on experience in firmware and software development. Currently enhancing my skills as a front-end developer, with all projects publicly available on my GitHub page. Actively seeking new opportunities to grow and make an impact.

Skills

Technologies:
- Python • C • JavaScript • HTML/CSS • C++ • C# • Java • SQL • VHDL • Verilog
- React Framework

Tools:
- Git • Bash • MySQL

Soft Skills:
- Detail oriented • Active communicator • Team player

Education

The University of Hong Kong June 2023

Bachelor of Engineering *(Major in Computer Engineering)* *Pok Fu Lam, Hong Kong*

GPA: 3.14 (π)

Relevant Coursework:
- Algorithms • Artificial Intelligence • Cyber Security • Database Management
- Software Engineering • Operating Systems • Applied Deep Learning

Projects

The Odin Project (Self-Directed Learning in Web Development) 2024 - Present

https://github.com/Zukurai-Kushal

- Participated in a full-stack web development curriculum covering HTML, CSS, JavaScript, Git, Node.js, databases, and various frameworks. Developed multiple responsive web applications, enhancing front-end and back-end skills (available on my GitHub page).

AIoT System for Smart Water Auditing April 2023

https://github.com/Zukurai-Kushal/Water_Audit_Project_Full

- Developed and deployed an innovative IoT system that captures and uploads household water usage data to a cloud-based database via Wi-Fi.
- Conducted comprehensive data analysis, including cleaning and feature extraction, to train an SVM model that achieved a 73% classification accuracy for water flow events.

Work Experience

High Tech Technology LTD. (IC Development Company) June 2021 - May 2022

Embedded Software Engineer (Intern) *Hong Kong Science Park, Hong Kong*

- Developed firmware for an embedded system by designing its core kernel architecture using SDCC (Small Device C Compiler) on a 8051-microcontroller architecture, which links the digital and analog components and enables the IC to operate as intended.
- Designed and conducted testing phases for multiple projects by writing and simulating test cases for different scenarios, ensuring a thorough and robust product for the end user.
- Led RTL digital circuit design for an RGB LED IC driver using Verilog, successfully integrated into electric car ambient lighting systems.

Additional

Languages:
- Fluent in English • Conversational Proficiency in Cantonese

Hobbies:
- Game development • Rock Climbing • Photography