

# Kushal Thapa

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🔗 https://kushal-thapa.vercel.app/

## 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 and personal website. 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 ( $\pi$ )

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://kushal-thapa.vercel.app/>

- 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 (visit my personal website for more details).

### AIoT System for Smart Water Auditing

April 2023

[https://github.com/Zukurai-Kushal/Water\\_Audit\\_Project\\_Full](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 • Basic Cantonese  
Hobbies: • Game development • Rock Climbing • Photography