

Aavash Bhattarai

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EDUCATION

Pulchowk Campus, IOE, TU <i>Bachelors in Electronics, Communication and Information Engineering</i>	Pulchowk, Lalitpur <i>June 2021 – Present</i>
Uniglobe College <i>10 + 2</i>	Kamaladi, Kathmandu <i>June 2018 – Nov. 2020</i>
Key Courses <i>Security Operations Fundamentals</i> <i>Cyber Risk Management and Advanced Operations</i>	Logpoint, Lalitpur <i>May 2024 - Sept. 2024</i> <i>Nov. 2025 - Present</i>

CERTIFICATIONS

Certified in Cybersecurity <i>ISC2</i>	Jan. 2025
Career Essentials in Cybersecurity <i>Microsoft and LinkedIn</i>	Nov. 2024

EXPERIENCE

Mentor <i>Hardware Fellowship</i>	July 2024 <i>LOCUS & Robotics Club</i>
<ul style="list-style-type: none">Guided 30+ students in basic electronics, microcontroller programming, and circuitry during an 8-day fellowshipProvided hands-on training and support to enhance participants' understanding of hardware systems.	
Instructor <i>Internet Awareness Campaign</i>	Nov. 2024 <i>WIA x CIT</i>
<ul style="list-style-type: none">Promoted responsible internet usage and cybersecurity awareness to over 300 students in Nepal's far-west region.Conducted interactive sessions and provided career guidance, fostering digital literacy and encouraging ethical technology use.	
Sub Co-ordinator <i>RoboPop</i>	January 2025 <i>LOCUS 2025</i>
<ul style="list-style-type: none">Coordinated event logistics, including arena setup, match scheduling, and team management, ensuring seamless execution of battles among 10 teams.Collaborated with teams to organize and manage the event, quickly resolving scheduling conflicts and operational challenges.	

PROJECTS

Intelligent Greenhouse Climate Control and Monitoring Application <i>React, AWS S3, ESP32</i>	Ongoing
<ul style="list-style-type: none">Collaborated with a team to develop a web application that provides real-time data on greenhouse parameters.Designed and implemented administrative controls and security measures to manage and safeguard the app.Currently setting up hardware to create and optimize microclimate zones for plant growth within the greenhouse.	
Tenzies on web <i>React, CSS</i>	Completed Oct. 2024
<ul style="list-style-type: none">Developed a web-based Tenzies dice game with interactive gameplay.Implemented a scoring system and high score tracking using localStorage for persistent data storage.	
Visualization of Artificial Bee Colony Algorithm <i>Python, Matplotlib</i>	Completed Aug. 2024
<ul style="list-style-type: none">Developed a visualizer for the Artificial Bee Colony (ABC) algorithm to solve the Traveling Salesman Problem.Collaborated with a teammate to implement both open-loop and closed-loop configurations, optimizing route selection and efficiency.	
Home Assistant in local language <i>Python, OpenAI API</i>	Completed Nov. 2023
<ul style="list-style-type: none">Developed a Home Automation Assistant capable of understanding and responding to Nepali commands.	

- Designed and trained a custom wakeword detection model using a self-curated dataset
- Integrated OpenAI's NLP model for command recognition to enhance functionality after dataset limitations were identified.
- Implemented predefined automation functions triggered by wakeword activation.

Premier League Clone | *React, PostgreSQL, Node.js*

Completed *July 2023*

- Constructed a fully functional web app for tracking match updates, team stats, and player details.
- Worked with a team to integrate frontend and backend in the Premier League Clone app.

OpenGL Infinite Runner | *OpenGL, GLFW*

Completed *March 2023*

- Developed an infinite runner game using OpenGL and GLFW.
- Implemented random obstacle generation and object collision detection mechanics to enhance gameplay experience.

TECHNICAL SKILLS

Languages: Python, C/C++, SQL, JavaScript, HTML/CSS

Frameworks/Libraries: React, Node.js, Redux Tailwind CSS, Bootstrap

Tools: Framer Motion, Axios, Highcharts