Aavash Bhattarai

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EDUCATION

Pulchowk Campus, IOE, TU   Pulchowk, Lalitpur
Bachelors in Electronics, Communication and Information Engineering   *June 2021 – Present*

Uniglobe College   Kamaladi, Kathmandu
10 + 2   *June 2018 – Nov. 2020*

Key Courses
Security Operations Fundamentals   *Logpoint*
Cyber Risk Management and Advanced Operations   *Logpoint*

CERTIFICATIONS

Career Essentials in Cybersecurity   Nov. 2024
Microsoft and LinkedIn

Certified in Cybersecurity   Jan. 2025
ISC2

Introduction to Cybersecurity Job Simulation   May 2025
Forage - Commonwealth Bank

EXPERIENCE

Mentor   July 2024
Hardware Fellowship   *LOCUS & Robotics Club*
- Guided 30+ students in basic electronics, microcontroller programming, and circuitry during an 8-day fellowship
- Provided hands-on training and support to enhance participants' understanding of hardware systems.

Instructor   Nov. 2024
Internet Awareness Campaign   *WIA x CIT*
- 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   Jan. 2025
RoboPop   *LOCUS*
- Coordinated event logistics, including arena setup, match scheduling, and team management, ensuring seamless execution of battles among 10 teams.
- Collaborated with teams to organize the event, quickly resolving scheduling conflicts and operational challenges.

Mentee   May 2025
SOC Mentorship   *Vairav Tech*
- Learning core fundamentals of a SOC, including roles, responsibilities, and workflow management
- Setting up log monitoring and collection mechanisms using the ELK stack for real-time security analytics
- Working with alerting mechanisms to identify and triage suspicious activities, while gaining client handling skills

PROJECTS

Automated Plant Care System | *React, AWS S3, AWS IoT Core*   Completed *March 2025*
- 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 | *React, CSS*   Completed *Oct. 2024*
- 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 | *Python, Matplotlib*   Completed *Aug. 2024*
- 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 | *Python, OpenAI API*   Completed *Nov. 2023*
- 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: JavaScript, HTML/CSS, SQL, Python
Cybersecurity tools: YARA, ELK, Splunk