Ankur Gyawali

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Education

Howard University **Aug 2022 - May 2026**
B.S in Computer Science, GPA: 4.0/4.0 *Washington, DC*

- **Coursework**:Software Engineering, Operating Systems, Fundamentals of Algorithms, Cloud Computing, Theory of Computation, Data Structures, Computer Organization, Discrete Structures, Calculus II, Computer Networks
- **Awards**: Dean's List, Google Capacity Scholar, DOW SURE Scholar, HU Founders Scholarship

Technical Skills

- **Languages**: Python, C/C++, JavaScript, SQL, MATLAB, HTML/CSS, React, Next.js, Flask
- **Tools & Technologies**: Azure, AWS, Linux, Confluence, JIRA, DevVM, Figma, Git/GitHub, Flutter, Wireshark
- **Certifications**: Cybersecurity Intermediate, iOS Development 101, Intro to Software Engineering

Work Experience

Software Engineering Intern **May 2024 – Aug 2024**
Dell Technologies *Hopkinton, MA*

- Led the development of a **Python**-based command-line tool that automates the extraction & analysis of diagnostic log data, reducing manual analysis time by **50%**.
- Engineered advanced data parsing & visualization techniques to identify critical system errors, contributing to a **25%** increase in user satisfaction.
- Enhanced diagnostic tool efficiency and reliability by collaborating with engineering and product management teams to align solutions with business goals in real-time environments.

Research Assistant **May 2023 – May 2024**
Howard University *Washington, DC*

- Improved biofilm modeling accuracy by analyzing the effects of hydrodynamic shear stress on *Staphylococcus aureus* adhesion, integrating BioFlux data with **COMSOL** simulations in **MATLAB**.
- Applied **Multiple Linear Regression** and **Polynomial Regression** to refine the correlation between shear stress and bacterial adhesion, contributing to more accurate computational models.

Steam Intern **Jul 2023 – Aug 2023**
Tech TurnUp *Washington, DC*

- Led hands-on workshops and mentored **100+** students in 3D modeling using **Tinkercad** and **Python**.
- Designed interactive AR/VR course materials via **CoSpaces.io**, resulting in a **25%** increase in student involvement and productivity, and providing campers with immersive educational experiences.

Projects

BisonBytes | Hackathon (2nd Position Overall and 3rd Position AI/ML Track) YouTube **Mar 2024**

- Developed an admission chatbot using **Azure Cognitive Search** and **OpenAI API** to provide real-time university information, improving resource accessibility.
- Implemented **Retrieval-Augmented Generation** for real-time data retrieval, enabling information access within **5 seconds** and significantly improving user experience over traditional website navigation.

Facial Recognition-Based Attendance System | CS 3 Class Final Project **Mar 2024**

- Built a **Python**-based attendance system using **Flask** & **OpenCV** for real-time face detection & recognition.
- Optimized encoding time by **40%** through parallel processing with **concurrent**.futures, enhancing responsiveness.
- Integrated OpenCV's **CLAHE** into a facial detection framework to optimize accuracy in diverse light settings, achieving a **30%** reduction in false positives.

Application Tracker | Personal Project **Nov 2023**

- Developed a **Flask** web app with Gmail **OAuth2** and **Gmail API** for automated job application email analysis, using asynchronous processing to improve parsing efficiency.
- Integrated **Firebase Firestore** for real-time data sync, optimizing performance with batched writes and indexing.
- Enhanced email content categorization accuracy by **30%** using the **Ollama Llama 3.1** model, improving **NLP**-based parsing and ensuring more precise extraction of key information such as company names and job statuses.

Leadership / Extracurricular

- **Campus Ambassador** (Dell Technologies) **Aug 2024**
- **Market Madness**: HBCU Possibilities Program (Goldman Sachs) **Feb 2024**
- **President** (Tech for Change Club – Howard Chapter) **Aug 2023**
- **Bison Externship** (NASA Goddard Space Flight Center) **May 2023**