Aayush Acharya

[GitHub](#) • [LinkedIn](#) • [Portfolio](#)

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EDUCATION

Bachelor of Science, Computer Science and Mathematics | GPA: 3.96   **Expected May 2026**
Elmhurst University   *Elmhurst, IL*
Coursework: Object-Oriented Programming, Data Structures & Algorithms, Operating Systems, Computer Networks

TECHNICAL SKILLS

Languages: C++, Python, C#, JavaScript, Java (basic)
Systems/Tools: Unix/Linux, Git, Docker, Bash, PowerShell, Microsoft SQL Server
Web/Frameworks: React, ASP.NET, FastAPI, Bootstrap, HTML/CSS
Data/ML: SQL, Excel, Pandas, NumPy, Matplotlib

PROJECTS

AI Tutoring Chatbot | [Website](#)
- Developed a full stack chatbot with frontend in **React/Tailwind CSS** and **RESTful** backend in **Python** using **FastAPI**.
- Integrated **OpenAI API** for static code analysis and implemented Markdown rendering for interactive learning.
- Applied **Agile methodology**, completing 4+ feedback iterations by collaborating with faculty and students to refine usability, improve accuracy, and enhance the user interface.
- Deployed to **support 70+ students** in Elmhurst University's introductory programming courses.

Unix Shell
- Built a **fully interactive** Unix shell in **C++** with support for built-in commands and external program execution.
- Implemented quoting logic, argument parsing, and REPL interface to accurately interpret and run user commands.
- Added support for features like path navigation, piping, I/O redirection, command autocompletion and history persistence.

HTTP Web Server
- Built a multithreaded HTTP server in **C++** supporting GET/POST requests, persistent connections, and concurrent clients.
- Implemented custom routing, gzip compression via zlib, and support for endpoints like /echo, and dynamic file serving.

ASP.NET Web Application Development
- Built a multipage **ASP.NET** web app with master pages, **Bootstrap/CSS** styling, & SMTP email confirmations via SendGrid.
- Integrated **Microsoft SQL Server** using **ADO.NET** for data storage, enabling full **CRUD** operations.
- Implemented backend in **C#**, including a secure admin login page, form validation, and hashed-password handling.

WORK EXPERIENCE

Articulation Assistant   **May 2024 - Present**
Office of Admissions, Elmhurst University
- Developed an **automation tool** in **C++** that streamlined student enrollment data processing, increasing speed by 70%.
- Managed data entry/analysis for 600+ student records using Ellucian Colleague, TES, and Slate, ensuring ~100% accuracy.

Mathematics Tutor   **Apr 2023 – May 2025**
Learning Center, Elmhurst University
- Delivered **300+ hours of tutoring** in Calculus and Algebra via in-person and Zoom, **boosting student grades by 15%**.
- Led guided study sessions and exam preparation workshops, enhancing problem-solving skills and exam performance.

LEADERSHIP AND AWARDS

- **Student Mentor -** Mentored 15+ CS majors on learning resources, career pathways and 4-year coursework planning.
- **President, CS Club –** Co-founded CS Club; ran seminars, info sessions, and problem-solving sessions for CS majors (2025).
- **Honors Summer Fellow -** Selected from 20+ applicants for a competitive fellowship to develop a Tutoring Chatbot (2025)
- **Faculty-Staff Merit Scholar -** Selected as 1 of 4 recipients from 200+ nominees; awarded $5,000 for academic excellence and leadership by Elmhurst University Honors Program (2025).
- **McGraw Foundation Scholar -** Selected as 1 of 2 recipients from 150+ applicants, awarded $2,381 by the Associated Colleges of Illinois for academic excellence and leadership (2024).

CERTIFICATIONS

CodePath - Intermediate Web Development, IOS Development (Fall 2025); Intermediate Cybersecurity (May 2025); Technical Interview Preparation (May 2025)