Dawit (Dave) Boku

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EDUCATION

Colby College, Waterville, ME **Graduation Date:** May 2026

Bachelor of Arts in Computer Science, Concentration in AI **GPA:** 3.77

Minor in Mathematics and Science, Technology, and Society

Organizations: ColorStack, CodePath, DavisAI Institute, DavisAI Advisory Board, Colby Hackers

Relevant Coursework: Object-Oriented Programming, Data Structures & Algorithms, Linear Algebra, Discrete Mathematics, Data Analysis and Visualization, Introduction to NLP, Computer Systems

TECHNICAL SKILLS

Programming Languages: Python, Java, Javascript, PHP, Typescript, Tailwind, HTML, CSS

Frameworks and Tools: Node.js, React/Next.js, Flask/Django, Selenium, Git, AWS, PostgreSQL, MySQL

WORK EXPERIENCE

Summer Research Assistant, *Colby College, Waterville, ME* June 2024 - Present

- Collaborated with a teammate, to develop a **database search** system for a database with **100+ entries** across 10+ educational and research institutions for the Coast-Cow-Consumer (C^3) Project
- Increased **efficiency of data analysis and exploration** by **more than 50%** by implementing advanced search and filtering methods specific to the C^3 research
- Led the redesign and development of the C^3 data repository webpage, improving the User Experience and Interface by creating better visual hierarchies, clearer wording and CTAs, and introducing a modern UI

Software Developer*, Davis Institute for A*I implementation of Responsible AI within a governmental context, that was distributed to organizational heads such as the CIO, CTO, and CITO of USAID

- **Identified** internal communication bottlenecks that slowed down the pace of experimentation and iteration, and **assisted** in the improvement of processes that facilitated better coordination between different departments

Main Instructor, Co-founder, *BuildWithPy, Addis Ababa, ET* March 2021 - September 2021

- Taught engaging weekly online **Python lessons** for Saint Joseph High School students
- Achieved an **8x growth,** expanding the community from **5 initial users** to over **40+ active members**. Improved **course quality** and **user experience** by actively integrating feedback from both students and faculty

PROJECTS

Pathfinding Visualizer | *Javascript, React, Java* GitHub | June 2023 - July 2023

- Engineered an interactive **web application** in **4 weeks** enabling users to dynamically visualize key pathfinding algorithms, including Dijkstra's, and A* Search, navigating mazes
- Deepened expertise in **data structures** and **algorithms** by solving complex pathfinding problems
- Acquired foundational proficiency in **React** and **JavaScript** syntax in a short timeframe demonstrating adaptability, commitment, and self-driven learning to meet project specifications

Gradescope Chrome Extension | **HackMIT** | *Python, Javasl, Colby College, Waterville, ME*

September 2023 - Present

- **Designed** and **developed** a chatbot playground interface with **React**, **Flask**, and **PostgreSQL**, enabling more than **10** faculty and students to access more than 10 Large Language Models, with **full multimodal support** for applicable LLMs
- Reduced the burden of managing multiple accounts by more than **80%** and enhanced data accessibility, data supervision, and management efficiency for DavisAI and Colby College

AI Technology and Policy Intern, *USAID, Washington, D.C.* January 2024 - February 2024

- **Wrote** a white paper on the practica*cript, Django* GitHub | September 2023
- Collaborated in a 3-member team to address the slow assignment submission process on Gradescope by engineering a Chrome extension. By introducing automated page selection, we **improved submission speeds** by **up to 50%**, significantly enhancing the students' experience.

- Leveraging **Selenium for dynamic web scraping** and **Google Vision API**, we built a precise mapping algorithm for matching questions to corresponding answer pages. Our algorithm was able to accurately match the correct pages with **65%** accuracy.