Ama Ansah

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Education

Wilfrid Laurier University

Waterloo, ON

Bachelor of Science in Computer Science and Mathematics

Aug. 2021 - June 2026

- Relevant Coursework: Data Structures, Machine Learning, Software Engineering, Algorithm Design/Analysis I
- Leadership: Vice-President of Events at Laurier Women in Math Coordinating events to foster engagement and support for women in STEM.

Technical Skills

Languages: Java, Python, HTML/CSS, Javascript (familiar)

Developer Tools: Firebase, VS Code, Git, GitHub, Flutter, React (familiar), Node.js (familiar)

Additional Skills: Bilingual (French and English), Microsoft Office Suite (Word, Excel, PowerPoint, Outlook)

Experiences

Developer In Residence

July 2024 - Present

Black Founder Network (UoFT)

 $Toronto,\ ON$

- Developed a robust web scraping solution using BeautifulSoup, **automating** the retrieval and organization of over 100 files, streamlining data processing workflows to reduce manual effort by 50% and cut operational costs.
- Designed and implemented an **authentication flow** using Firebase for secure access to chat functionality within a Flutter mobile app.
- Collaborated in an agile team of 5–6 developers, contributing clean, production-ready code and actively participating in code reviews.

Science Maker Lab Assistant

October 2024 – Present

Wilfrid Laurier University

Waterloo, ON

- Led introductory SolidWorks software sessions for students, enhancing their design and modeling skills.
- Facilitated promotional events and open houses to showcase lab capabilities, engage students and faculty, and increase participation by 15%.

Career Peer Volunteer

September 2024 – Present

Wilfrid Laurier University

 $Waterloo.\ ON$

- Assisted 20+ students with resume and cover letter reviews, improving application quality and increasing readiness by 15%.
- Conducted alumni interviews to create career profiles, enhancing career resources for students.
- Assisted in career workshops and outreach events, guiding students on job applications and interview preparation.

Projects

Text Data Processing and Topic Modeling with LDA | Python, NLP

March 2025 – April 2025

- Analyzed a dataset of research papers from arXiv using TF-IDF, BERT, and Latent Dirichlet Allocation (LDA) to extract insights and identify research trends.
- Applied **supervised and unsupervised learning** techniques for feature extraction, topic modeling, and interpretation of trends in research publications.

Client-Server Chat Application | Python |

October 2024 – November 2024

- Built a multi-threaded TCP client-server chat app, enabling real-time messaging for up to 3 clients.
- Implemented dynamic client naming and registration, assigning unique IDs to new clients and maintaining an in-memory cache to track session activity, improving user management.

File Data Formatting Application | Java

March 2024 - April 2024

- Developed a Java application to read and format data from two text files into a new file, ensuring adherence to specified input and output formats.
- Implemented a sorting algorithm to organize output by product ID, improving data accessibility.