

# DEBORAH AJAYI

Ottawa, Ontario

+1 613 293 3182 | [DEBORAHJAYI4@cmail.carleton.ca](mailto:DEBORAHJAYI4@cmail.carleton.ca) | [Portfolio](#) |  
[LinkedIn](#) | [Github](#)

## EDUCATION

### Carleton University

Ottawa, Ontario

Bachelor of Engineering in Computer Systems

Expected [June 2026]

- Third Year Standing
- **Relevant Coursework:** Operating Systems, Algorithms and Data Structures, Object-oriented programming, Real time systems, Software Validation, Web Development

## SKILLS

**Software/Tools/Framework:** Git, Jira, Confluence, Linux, SVN, Jenkins, Virtual Machines, React, NodeJs

**Technical Skills:** Web development, Object-Oriented Programming, Data Structures & Algorithms, Software Validation

**Programming Languages:** Python, C/C++, Java, JavaScript, HTML/CSS, Django, Flask

## WORK EXPERIENCE

### Blackberry QNX

Ottawa, Ontario

Software Developer Intern January 2024 – August 2024

- Resolved Common Vulnerabilities and Exposures (CVEs) in coding libraries, significantly improving the security posture of the product and reducing the risk of potential exploits.
- Delivered timely bug fixes reported by the QA team, contributing to the stability and reliability of the software, and improving user satisfaction by addressing critical issues.
- Used virtual machines(QEMU) to run tests on different architectures to ensure proper functionality..

## PROJECT EXPERIENCE

### Amazon Clone(HTML ,CSS and JavaScript)

- Designed a scalable **data model** to handle product details like ratings and prices effectively
- Users can browse products, add the products to cart, and select quantity using **adjustable quantities**, and they can view the products in their cart
- Payment summary is dynamically calculated and the cost breakdown is shown
- Developed **automated tests** to test the functionality of cart display, and DOM behaviour using **Jasmine**

### ChatBot(HTML & CSS , JavaScript, React)

- Developed a React based chatbot that performs multiple functions including flipping a coin, rolling a dice and getting today's date.
- Integrated **asynchronous API calls** using supersimpledev library to retrieve dynamic responses from the chatbot, ensuring a seamless user experience
- Implemented real-time messaging system with state machine management using Reacts **useState** and **useEffect** hooks
- Created a responsive and **intuitive UI**, with personalized user and robot profile images, utilizing React components like ChatMessages and ChatInput for optimal user experience.

### Data Analyzer(Python)

- Developed an interactive dataset analyzer program with a user-friendly interface which was used to call data analysis functions.
- Developed functions to create dictionaries that organize books and storing it in a dictionary, then implemented functions to manage the book data.
- Created functions for various data manipulation such as adding books, and retrieving books.
- Conducted unit testing for each function and integrated the functions to a single file ensuring correctness and adhering to the guidelines.

### Linux ATM Simulator(C)

- Developed a prototype program emulating an ATM system.
- Utilized **concurrent processes**(DB Server, DB Editor and the ATM) and IPC services.

- **Message queues** ensured seamless communication between the processes.

#### **Software Testing and Code Quality Assurance with Jacoco**

- Implemented comprehensive **test suites** for multiple algorithms, using Jacoco to achieve high levels of code coverage and ensuring all branches and statements were effectively tested.
- Developed and executed unit tests for integer square root algorithms, using Jacoco to track statement and branch coverage, leading to a **95%+ coverage** rate across all functions.
- Utilized Jacoco for structural coverage analysis, identifying critical gaps in test coverage and improving test accuracy, resulting in more robust software and fewer post-deployment issues