Ayesha Chaudhry

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Technical Skills

Programming Languages: Java, C++, Python, Ruby, PHP, LaTeX, R
Tools/Frameworks: Spring Boot , Spring HATEOAS, Three.js, Node.js, Android SDK, POSTMAN, Git, Apache Kafka
Backend Tools: MySql, PostgreSQL, CosmosDB, Azure, MongoDB
Frontend Tools: HTML, CSS, Javascript
Methodologies: Agile, Scrum

Work/Professional Experience

Software Engineering Peer Mentor — *Ewing, NJ*
The College of New Jersey — *Jan 2024 – May 2025*

- Led lectures on Git, GitHub, and software engineering concepts while mentoring students; provided code reviews, and guided full-cycle development using Ruby on Rails and PostgreSQL
- Refactored and deployed production-ready web applications in a Unix-based VM environment; delivered final builds directly to stakeholders

Student Technician — *Ewing, NJ*
Media & Technology Support Services — *May 2022 – May 2025*

- Helped students and faculty at The College of New Jersey through investigating hardware problems on campus IT equipment. Gained experience in customer service and working in a team in tech-related fields

Android App Development Research — *Ewing, NJ*
TCNJ Wayfindings Systems Lab — *Sep 2023 – Sep 2024*

- Developing an Android mobile application using BLE beacons for indoor way finding for visually impaired individuals, incorporating SQLite, pathfinding algorithms, audio-based UI, and graphs to model an indoor environment primarily using Java and Kotlin

Software Engineering Intern at Walmart Global Tech — *Bentonville, AK*
Walmart Global Tech — *June 2024 – Aug 2024*

- Achieved a **99% reduction in manual intervention for store update workflows** by developing and deploying backend automation services using Java, Spring Boot, SQL, and Apache Kafka for Walmart's Finance Data Services team
- Automated the synchronization of 500+ store-related database updates, including closures and reopenings; implemented CI/CD pipelines for seamless deployment and resolved 50+ JIRA tickets to improve system reliability
- Ensured **90%+ coverage rate on 20+ JUnit 5 integration tests** as measured by CI test reports by wiring up WireMock stubs and validating through POSTMAN for all downstream calls

Education

The College of New Jersey, Ewing NJ — *Sept 2021 – May 2025*
BS in Computer Science, GPA: 3.5

- **Coursework:** Data Structures, Database Systems, Computer Architecture, Software Engineering, Computer Networking

Projects

PACTALK — *PACTALK-AC*

- Developed a modification of the traditional Pac-Man game that can be controlled through voice commands using Python, Vosk and Pygame. This includes commands for moving the Pac-Man character in different directions and pausing the game.

ArmInArm Food Pantry Project — *ArmInArm*

- Developed a Ruby on Rails web application for the ArmInArm pantry in Trenton NJ, automating client organization through a digital client profile form that replaced paper records, enabling volunteers to easily retrieve client data using SQL and MongoDB. HTML, JS, and CSS were used for User Interface.

Molecular Simulation of Bacterial Pili Adhesion — *BakerLab*

- Wrote Tcl scripts to automated molecular dynamics simulations of S-ena pili filaments on a high-performance computing (HPC) cluster; analyzed adhesion behavior using Python and R on MATLAB to graph linear interaction energies as part of a multidisciplinary research project.

NextGenHire — *NextGenHire*

- Built a full-stack Flask web application that streamlines the job search process with an AI-powered cover letter generator and resume enhancer; integrated MongoDB, Auth0 authentication, and the Google API.