

Ayesha Chaudhry

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Education

The College of New Jersey, Ewing NJ

Sept 2021 – May 2025

BS in Computer Science

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

Work/ Professional Experience

Student Technician

Ewing, NJ

Media & Technology Support Services

May 2022 – Present

- 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

Software Engineering Intern

Bentonville, AK

Walmart Global Tech

June 2024 – Aug 2024

- Developed backend automation services for Walmart's Finance Data Services team using Java, Spring Boot, SQL and Kafka to synchronize database updates, such as major store events like closures and re-openings, eliminating previous system of manual intervention.

Software Engineering Peer Mentor

Ewing, NJ

The College of New Jersey

Jan 2024 – Present

- Mentored students on using GitHub, taught key software engineering concepts, and streamlined their project integration by resolving bugs and merging contributions efficiently.

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

MUSE Student Researcher

Ewing, NJ

Mentored Undergraduate Summer Research

Jun 2023 – Aug 2023

- Conducted molecular simulations of S-ena pillis filaments to observe their adhesive properties when attaching to host cells using HPC in Python and R for creating graphs with a multidisciplinary research team.
- Leveraged Jupyter Notebook and MATLAB to graph linear interaction energies of bacterial pilus.

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

Technical Skills

Languages: Java, C++, Python, Ruby, PHP, LaTeX, R

Frameworks: Spring Boot, React, Three.js, Node.js, Android SDK, Hibernate

Backend Tools: Git/Github, MySQL, PostgreSQL, CosmosDB, Azure, MongoDB

Frontend Tools: HTML, CSS, Javascript