

⊠ kirtannpatel2003@gmail.com



Aspiring **Software Engineer** with experience in building scalable systems, backend infrastructure, and cloud applications. Skilled in **C/C++ debugging, concurrency, full-stack development, and system-level programming**. Teaching Assistant supporting **250+ students**, with strong communication and leadership skills

EDUCATION

University of Illinois at Chicago (UIC), IL

Dean's List (2 semesters) |GPA: 3.6/4.0

B.S. in Computer Science (Software Engineering Concentration)

Expected May 2026

Relevant Coursework: Data Structures & Algorithms, Operating Systems, x86-64 Assembly, SQL, Software Design, Programming Language Design, Computer Design, Languages and Automata, Programming for Engineers (TA role), Computer Architecture

TECHNICAL SKILLS

- Languages: C, C++, Python, Java, Go, MATLAB
- Systems & Backend: Concurrency, Multithreading, Socket Programming, Data Structures & Algorithms, Memory Management, REST APIs, SQL
- Tools & Platforms: AWS, GCP, Git, Jira, GDB, Linux/WSL, VS Code
- Other: Debugging, System Design, Agile Development, Teaching & Mentorship

EXPERIENCE

University of Illinois at Chicago – College of Engineering Teaching Assistant | CS 109 (MATLAB), CS 107 (C Programming)

| Aug 2024 - Present

- Led labs and office hours for 250+ students, improving assignment completion rates by 15%.
- Debugged and explained **200+ student programs** in C/C++ and MATLAB, focusing on **pointers, memory management, algorithms**, and debugging techniques.
- Collaborated with faculty to prepare lab materials and reinforce best coding practices.

PROJECTS

Software Engineering Project - BIOTRACK

- Led backend development for a digital conservation database platform.
- Designed SQL schema to track habitats, sightings, and conservation reports.
- Implemented REST endpoints to support data entry and retrieval.

Resume Analyzer (Python)

- Developed tool that analyzes resumes against job descriptions to highlight **matched/missing skills** and generate a **match score**.
- Uses NLP keyword extraction to help tailor applications achieving 100% skill coverage in testing.

Weather Application (Java FX , APIs)

- Implemented multi scene navigation with seamless transitions between current weather, 3 day weather for both day and night and tourist
 information, Enhanced UI/UX with city specific backgrounds and integrated location based fun facts and tourist attraction data to provide
 guide for tourists
- Built a multi-scene weather app with API integration, enhancing UX through dynamic city backgrounds and location-based insights.

Multithreaded Web Server

- Built a lightweight HTTP/1.1 multithreaded web server in C from scratch using sockets and a worker thread pool.
- Implemented routing, static file serving, and per-IP rate limiting, mimicking real-world backend infrastructure.
- Demonstrates systems programming, concurrency, and networking fundamentals critical to large-scale services.

Mini Search Engine (C)

- Built a search engine with hash-table inverted index to scan and rank text files by frequency.
- Designed interactive CLI to support keyword queries, inspired by Google Search internals.

EXTRACURRICULARS, CERTIFICATIONS & ACHIEVEMENTS

- Cybersecurity Club CTF Competitor (Aug 2023 Present): Reverse Engineering & Cryptography challenges
- SparkHacks Hackathon (Feb 2025): Built innovative team-based software project
- AWS Certified Cloud Practitioner (2024)