

## Contact

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## Top Skills

C++

Python (Programming Language)

React.js

# Rahil Shukla

MCS @ North Carolina State University | AI Engineer Intern @ COGBEEd | Developing AI Solutions  
Raleigh, North Carolina, United States

## Summary

Currently pursuing a Master of Science in Computer Science at North Carolina State University, building on a Bachelor of Technology in ICT with a minor in Computational Science from Dhirubhai Ambani Institute of Information and Communication Technology. Academic and professional experiences emphasize advanced computational science and software engineering.

Recently contributed as an AI Engineer Intern at COGBEEd by developing Python-based REST microservices to manage WebRTC sessions and LLM prompt-loop dialogues over WebSockets. Delivered solutions integrating OpenAI STT + TTS for real-time conversational systems and implemented automated LLM output evaluation processes. Dedicated to creating scalable, efficient architectures, with proficiency in microservices and WebSocket protocols.

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## Experience

COGBEEd

AI Engineer Intern

May 2025 - July 2025 (3 months)

Raleigh, North Carolina, United States

- Built and shipped Python REST microservices to orchestrate LiveKit WebRTC sessions and LLM prompt-loop dialogues over WebSockets, supporting 30+ concurrent interview sessions with reliable session lifecycle management.
- Integrated OpenAI STT + TTS with asynchronous processing and streaming I/O, achieving sub-second transcription latency and real-time audio synthesis for conversational turn-taking.
- Implemented automated LLM output evaluation (structured Q&A + composite scoring + soft-skill badges), reducing manual review effort by 60% and standardizing downstream consumption for product/analytics.

- Containerized services with Docker and deployed/managed them on Kubernetes, improving environment consistency and enabling reliable rollouts of backend microservices.

**AVI Web Solutions PVT. LTD.**

Machine Learning Intern

January 2024 - June 2024 (6 months)

Ahmedabad, Gujarat, India

- Developed a system to vectorize the contents of documents in various languages using Python.
- Utilized the Pandoc API to convert documents into Markdown format, applied licensed Large Language Models like OpenAI for vectorization, and stored the vectorized content in a PostgreSQL vector database.

**Dhirubhai Ambani Institute of Information and Communication Technology**

Teaching Assistant

August 2023 - January 2024 (6 months)

Gandhinagar, Gujarat, India

- Engaged as a Teaching Assistant in the course "CALCULUS".
- Assisted the faculty with classroom instructions, records, assignments, projects, and examinations.
- Managed and graded assignments, quizzes, examinations, and projects of around 400 students.
- Conducted Tutorial sessions and solved all the doubts that the students had.

**VONLY**

Software Engineer Intern

May 2023 - July 2023 (3 months)

Ahmedabad, Gujarat, India

- While doing my Internship there I developed an algorithm to identify the missing or incorrect metadata and populated missing information if they are available on the OTT platform. I also generated exception reports to identify such criteria.
- Designed and developed an algorithm for ID consolidation and data mapping for various media entities like Movies, Shows, seasons, and Episodes for multiple portals and platforms. Also, implemented an algorithm using C code to a working system.

- Worked on a C application to map various media entities using the point-based system. Also worked on test application to validate existing and new mapping.
- Studied existing Movie Title mapping system and created draft of TV show, Season, and Episode title mapping system. Identified key data attributes for shows, Season, and Episode entities. Defined a Point-based system to map various media entities.
- Worked on identifying key fields to map various media entities and created a point-based rating system to check valid and invalid mapping systems. Identified test cases and validated them against test applications to create mapping rules.
- Guide: Mr. Atul Kansara

Student Body Government, DA-IICT  
Annual Fest Committee Core Member (Synapse)  
April 2021 - April 2022 (1 year 1 month)  
Gandhinagar, Gujarat, India

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## Education

North Carolina State University  
Master of Science - MS, Computer Science · (August 2024 - May 2026)

Dhirubhai Ambani Institute of Information and Communication Technology  
Bachelor of Technology - BTech, ICT with minors in Computational Science · (2020 - 2024)