

RITIKA GHANTI

Dallas, Texas (Authorized to work in USA and open to relocation)
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SKILLS

- **Languages:** Java, Python, C++, JavaScript, Kotlin, SQL
- **Web Technologies:** HTML, React, REST APIs, Junit, Selenium
- **Database:** MySQL, Oracle DB, MongoDB, PostgreSQL
- **Networking:** TCP/IP, UDP, DNS, IPv4, SSH, Load Balancing, HTTP/S, TLS
- **Systems, OS & DevOps:** Mac, Linux, Windows, Android, Distributed Systems, CI/CD, Docker, GIT, Jenkins
- **AI & ML:** PyTorch, NLP, Scikit-Learn, Flask, TensorFlow, OpenCV, CNN, RNN, LSTM

EDUCATION

Master of Science in Computer Science (GPA: 3.9)

Aug 2023 – May 2025

The University of Texas at Arlington

Software Engineering and Artificial Intelligence specialization

Bachelor of Engineering in Computer Science (GPA: 3.6)

Jun 2019 – Jul 2023

Don Bosco College of Engineering, India

EXPERIENCE

Research Engineer/GTA – The University of Texas at Arlington

Apr 2024 – Present

- Engineered a personalized course recommendation engine using **NLP** and **collaborative filtering**, increasing course match accuracy by 28% in internal evaluations
- Process and clean **5,000+ records** from academic transcripts and SOPs using **Python (spaCy, pandas)**, reducing preprocessing time by 40%
- Conduct **A/B testing** with 40+ students, with 82% reporting higher satisfaction with course selection versus traditional advising methods

Software Development Engineer – CodeRelix

Jan 2023 – Jun 2023

- Developed a web application using **React.js**, **Node.js**, and **Java Spring**, improving load times by 20%
- Built **RESTful** and third-party API integrations, reducing data retrieval time by 30%
- Created unit and integration tests with Junit and Mocha, cutting bugs by 40%

Software Engineer Intern – Umang Technologies

Jan 2022 – Aug 2022

- Liaised in developing and maintaining web applications using **Laravel**, improving API response times by 20%
- Facilitated collaboration through team of 10 over **100 Git commits**, ensuring seamless version control
- Enhanced web application development by using Angular to streamline API interactions, resulting in a 25% reduction in average API response times and improving overall data retrieval efficiency

PROJECTS

Real-Time Object Detection System (YOLOv5, OpenCV, TensorBoard)

Nov 2024

- Achieved **98% accuracy** in utilizing bounding boxes to identify objects in images and videos
- Refined inference speed, reducing latency to **<15ms per frame**, enabling real-time surveillance
- Trained the model on a custom dataset with **50,000+ images**, improving detection accuracy by 10%

Neural Chatbot (Retrieval Augmented Generation, LangChain, Intel Neural Chat 7B)

May 2024

- Built an AI-powered LLM chatbot that can answer questions with **95% accuracy** based on uploaded documents
- Improved memory efficiency by fine-tuning embeddings, reducing storage overhead by 15%
- Optimized response efficiency, reducing query processing time by 30% through LangChain, BGE Embeddings, and Chroma DB integration

Musiqi (ReactJS, Shazam API, Selenium)

Apr 2024

- Streamlined semantic search queries in music library application by implementing vector search-based retrieval, improving query relevance by 40% and establishing more targeted music recommendations
- Constructed the backend with NodeJS, achieving a **25% reduction** and ensuring smoother user experience
- Executed **UI testing with Selenium**, reducing user-reported bugs by **20%** and improving application stability

LearnSketch (Python, Kotlin, Android Development, MongoDB)

Jul 2023

- Attained a user centric mobile app that leverages advanced image recognition technology to identify discrepancies in artists outputs, leading to 40% less time spent on revisions and increased client satisfaction
- Minimized sketch inaccuracies by 15%, improving user satisfaction and efficiency in art projects
- Optimized the app's performance, reducing the app's load time by 40%, ensuring smooth functionality