

Kishan Rakesh

Dallas, TX

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Education:

MS in Computer Science, The University of Texas at Dallas (GPA: 4.0/4.0)

Aug. 2024 – May 2026 (Exp.)

- Awarded the Jonsson School Dean's Graduate Scholarship
- Coursework: Algorithmic Analysis, Big Data Management, Database Design

B.Tech in Information Technology, National Institute of Technology Karnataka

- Coursework: Machine Learning, Software Engineering, Human Computer Interactions

Experience:

Student Researcher, The University of Texas at Dallas

May 2025 – Present

- Developing a context-aware accessibility tool that identifies missing and non-descriptive semantic labels in web applications and suggests improvements for screen reader compatibility
- Leveraging Large Language Models (LLMs) and Computer Vision to generate context-aware labels to reduce developer effort in remediating accessibility issues and improving user experience for visually impaired users

Product Engineer, Maybank

June 2021 – July 2023

- Developed a full-stack loan application system using Spring and React for 3000+ bank branches
- Created 40+ RESTful Web APIs to perform CRUD operations, enhancing the efficiency of loan application processing
- Led a team in an internal hackathon to conduct preliminary research and prototype a centralized system to process internal job transfer requests
- Initiated an end-to-end refactor of 6 critical system modules, reducing bugs by 15%, and smells by 82%

Publications:

Optimized Distributed Job Shop Scheduling (2022), LNEE, Springer. S. Vivek, **Kishan Rakesh**, Biju R. Mohan

Proposed a two-stage approach to the Distributed Job Shop Scheduling Problem using balanced job allocation and modified ant colony optimization, reducing maximum makespan by 4%

Projects:

Temporal Graph Model for Flight Data

Sept. 2024 – Dec. 2024

- Designed a temporal property graph in Neo4j to model historical flight data
- Implemented 4 path traversal algorithms and benchmarked performance on datasets up to 4,000 flights
- Visualized optimal flight paths on geographical maps with time-stamped routes using Cartopy
- **Technologies Used:** Python, Neo4j, Pandas, Matplotlib, Cartopy

Assistive Tool for Colorblind Sports Viewers

Jan. 2020 – June 2020

- Built a Computer Vision tool to detect and label entities in American Football broadcast footage, receiving 87.5% positive feedback from colorblind users
- **Technologies Used:** Python, OpenCV

Technologies

Programming Languages: Java, Python, JavaScript, HTML/CSS, SQL, C

Libraries & Frameworks: Spark, Spring, JPA, React, OpenCV, Keras, Tensorflow, NumPy, Pandas

Cloud Platforms: Amazon Web Services, Google Cloud Platform

Database & ORMs: OracleDB, MySQL, MongoDB, Hibernate, Neo4j, HBase, Cassandra

Server & Build Tools: Maven, Jenkins, Apache Tomcat, JBoss EAP