

Mugunthan Krishnan

+1-5513706714 | mugunthankrishnan11@gmail.com | LinkedIn: [/in/mugunthank11](#) | GitHub: [mugunthan-krishnan](#)

WORK EXPERIENCE

Teaching Assistant, New Jersey Institute of Technology, Newark, USA Jun 2023 - Present

- Assist students on cloud computing coursework projects in AWS and hold weekly office hours.
- Monitor AWS EC2, S3, EMR and add IAM policies, roles in the AWS Academy console for the students.

Software Engineer 2, Oracle Cerner, Bengaluru, India Mar 2021 - Jul 2022

- Managed an agile team consisting of 15 employees while mentoring 8 interns over a one-year period, establishing, and implementing strategic roadmaps.
- Implemented automated patient data validation, resulting in a 15% reduction in operational costs and a 40% decrease in new support tickets.
- Optimized SQL scripts to operate on aggregated data rather than transactional data, resulting in **66%** reduction in processing time for datasets averaging **100 million** records.

Software Engineer 1, Oracle Cerner, Bengaluru, India Jul 2018 - Feb 2021

- Developed efficient SQL scripts that identified errors in medical data, thereby saving **\$3M** in fines.
- Implemented an automation service to boost Root Cause Analysis efficiency for data cleanup by 50%.
- Designed a full-stack application to perform real-time claim validations of patients and spot inaccuracies.

Software Engineer Intern, Oracle Cerner, Bengaluru, India Jan 2018 - Jun 2018

- Developed a SQL script to gather laboratory orders handled by technicians, reducing 25 man-hours per week.
 - Designed a Patient Tracker dashboard for Primary Care Physicians using ReactJS, OracleDB and Java.
-

SKILLS

Languages: Python, Java, Typescript, Javascript, SQL, HTML5, CSS3, Go, C++, C#, Ruby

Libraries & Frameworks: AngularJS, ReactJS, NodeJS, Flask, Django, Spring Boot

Tools: Git, JIRA, Docker, Kubernetes, Subversion, Heroku, Kafka

Databases: MySQL, MongoDB, PostgreSQL

Other: Linux, RESTful APIs, GraphQL, Azure, GCP, AWS - EC2, SQS, S3, Rekognition, EKS, Lambda, EMR

EDUCATION

Master of Science - Computer Science Aug 2022 - May 2024

New Jersey Institute of Technology, Newark, NJ GPA:3.94/4

Coursework: Cloud Computing, Data Structures and Algorithms, Database Systems, Web Systems Development

Bachelor of Technology - Computer Science & Engineering Aug 2014 - Jun 2018

Amrita Vishwa Vidyapeetham, Coimbatore, India GPA:7.96/10

Coursework: Operating Systems, Software Engineering, Computer Networks

PROJECTS

[Recipe Book](#) Dec 2023 - Present

- Designed and developed a full stack application to add and edit shopping lists and recipes in **AngularJS**.
- Implemented **RESTful APIs** to store and retrieve database in **Firestore** Real-time database.
- Utilized RxJS for async communications and ngRx for complex state management.

[Independent Living Application](#) Nov 2023 - Dec 2023

- Designed and developed a full stack application using ReactJS, Python, OCI Database.
- Led a team of five to develop an application to be used at Independent Living Centers.
- Implemented **RESTful microservices** in the backend to interact with the database using **FastAPI**.
- Deployed the application via a docker container in Heroku using GitHub Actions.

[Wine Quality Prediction](#) Mar 2023 - Apr 2023

- Developed machine learning models over wine quality datasets using **Apache Spark** and **AWS MapReduce** in **Java**.
- Designed the application using **AWS EMR** to train the models and developed a prediction application in Flask.
- Achieved **83.5%** accuracy with Random Forest Model and deployed the application using **docker container**.