

ADITI RAO

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EDUCATION

Manipal Institute of Technology

BTech, Computer Science and Minor in Big Data

CGPA: 8.82

Graduation Date: Jul 2023

WORK EXPERIENCE

Amazon Bengaluru, Karnataka

Software Development Intern Jan 2023 - Jun 2023

- Spearheaded the successful integration of Pix payment method for Amazon subscriptions in Brazil, showcasing proficiency in **SpringBoot**. Executed a robust testing strategy, with comprehensive **unit and integration tests**, ensuring end-to-end functionality and an enhanced customer experience. Collaborated with cross-functional teams to meet all technical and business requirements. Pix will be the main driver for attracting up to **2 million** new customers in Brazil and generating a revenue of around **\$72 million**.
- Established and hosted a SonarQube instance using AWS cloud technologies like VPC, RDS and CloudFormation. **Designed an automation** system that leveraged **python** and **bash scripting** to seamlessly integrate analysis into the internal pull request workflow thereby enhancing code review processes and maximizing code quality. It found around **48000** issues in the codebase.
- Orchestrated real-time log analysis for our API service using **Guice** and **SpringBoot** to enable efficient debugging, resulting in a **90%** decrease in the time taken for root cause analysis of issues for our team as well as client teams.
- Integrated AWS CloudWatch RUM (Real User Monitoring) in our application using **SpringBoot** and **JSP** for logging client side metrics, latency metrics and gaining actionable customer insights. This led to an **80%** increase in successful resolution of previously unsolvable client-side tickets with access to valuable client-side logs.

FastJobs.io Mumbai, Maharashtra

Software Development Intern Jun 2022 - Sep 2022

- Engineered an internal tool utilizing **HTML**, **JQuery**, and **Google Apps Script** that resulted in a **50%** decrease in invoice processing time. Generated digitally signed invoice PDFs, complete with secure digital signatures, dates, and unique IDs. Streamlined data management by seamlessly updating pertinent information in an Excel sheet.
- Drove the backend development of a dynamic **Applicant Tracking System (ATS)** powered by **Node.js**, **Express**, and **MongoDB**. Contributed to the design and implementation of **RESTful APIs** resulting in **30%** increase in recruiter productivity. Skillfully integrated Sarv's third-party API, enabling seamless communication between recruiters and candidates.

PROJECTS

Mars Rover Manipal Manipal, Karnataka

Electronics and AI Team Member Sep 2019 - Aug 2021

- Collaborated on an **autonomous navigation** stack for a rover using Nvidia Jetson TX2, GPS, IMU, Stereo Camera, and Lidar. Enabled live telemetry to monitor operations remotely using **sockets** and **multithreaded** video feed. Awarded **first place** in the Indian Rover Design Challenge and **third place** in the International Mars Hackathon.
- Devised an algorithm to search for and autonomously traverse between 2 AR/fiducial tags.
- Developed an autonomous **delivery drone** simulation for IIT Bombay's **EYantra Robotics competition**. Implemented cascading PID to control the drone autonomously with obstacle avoidance. Trained an **OpenCV Cascade Classifier** to detect the landing pad marker. Designed a scheduling algorithm for the drone to decide a time and cost-efficient delivery route.
- Participated in the highly competitive **ARTPARK Robotics Challenge**, designing advanced algorithms for door finding, navigation mapping, and obstacle avoidance in a complex restroom environment.

Open Source Contributions

Rotting Research (rottingresearch.org)

- Built the **Flask web app** for **linkrot** package to parse a PDF for active/broken links and generate a downloadable report.
- Documented** the usage of linkrot for extracting active links, pdfs, arxiv from a pdf to help researchers to cite resources properly.

Piper (piper-music.onrender.com)

Exploratory Data Analysis Project

- Piper is **Flask web app** that leverages the **Spotify API** to extract and analyzes music data using the Random Forest Classifier **machine learning model**, incorporating interactive charts for **data visualization**.
- Performed basic **sentiment analysis** on lyrics using the NLTK library and pulling lyrics from the **Genius API**.

SKILLS

Languages: Java, Python, C++, C, JavaScript, HTML, CSS, SQL, Bash Scripting

Tools: SpringBoot, Flask, FastAPI, Node.js, Express.js, MongoDB, Redis, Celery, React, Tailwind, Mockito, AWS, Linux, Git, Tensorflow

Relevant Courses: Distributed Systems, Cloud Computing, Computer Networks, Data Structures and Algorithms, Operating Systems
Database Management Systems, Machine Learning, Big Data Analytics