

NILESH KUMAR MANDAL

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EXPERIENCE (3.5 Years)

Developer, Tata Consultancy Services (TCS), Bengaluru

Nov 2022 - Current

Account – Envestnet

- Implemented automatic test case generation using GenAI, creating comprehensive test scripts that reduced tester workload and enhanced overall testing efficiency.
- Enhanced QA Governance procedures by automating workflow processes, resulting in a 90% reduction in non-compliance incidents.
- Developed internal Jira tools APIs using Python, which improved data extraction efficiency by 40%, aiding management reporting and visualization.

Tech Stack: Python, Flask, MySQL, Jira, Linux, GitLab, Postman, Power BI

Associate Software Engineer, Envestnet, Bengaluru

Aug 2021 - Nov 2022

- Developed and enhanced internal testing automation tool, boosting testing efficiency by over 50% through the implementation of job scheduling functionality.
- Migrated the ticket tracking workflow from Bugzilla to Jira by creating multiple APIs, and integrated Jira APIs to automate bug creation when running from our internal testing automation tool.

Tech Stack: Spring Boot, Java, Flask, Python, Linux, Windows Remote Service, GitLab, Postman, MySQL, MongoDB

Research Intern, National Institute of Technology Rourkela, Rourkela

Jun 2019 - Jul 2019

CLASSIFICATION OF EMOTION USING EEG SIGNALS ON DEAP DATASET

- Developed machine learning models using Python and Scikit-learn to predict different states of emotions with an accuracy of 85% on the DEAP Dataset.

Tech Stack: Python, Pandas, NumPy, Sklearn

TECHNICAL SKILLS

Languages: Python, Java **Databases:** MySQL, MongoDB, SQLite

Frameworks: Flask, FastApi, Django, Django Rest Framework, Llama-Index, Langchain, Spring Boot

Technologies: GitLab, GitHub, AWS, Docker, GCP, Linux, Jira, Power BI, Postman

PROJECTS

Semi Open-Source Advance Rag (SOAR)

Apr 2024 - Current

- Managed vector database to efficiently index and retrieve information from diverse knowledge sources like files, strings, URLs, and social media.
- Developed an advanced Retrieval-Augmented Generation (RAG) service utilizing agentic architecture for enhanced query relevance.
- Designed and implemented an API endpoint for custom queries, ensuring high performance, scalability, and accurate responses from the indexed corpora.
- Tech Stack :** Llama Index ,Python, MySQL, Django

Project Management and Quality control – INSIGHT

Oct 2021 - Oct 2022

- Created a Full-scale Project management application using Django for an Interior Design Company.
- The aim is to manage ongoing projects along with providing timely updates to the client on the progress.
- Tech Stack:** AWS (EC2, RDS), Azure, Django, Python, MySQL

Fantastic Computing Machine - FCM

Dec 2020 - Jun 2021

Final Year Project

- Developing a SaaS Platform to deploy Machine Learning Pre-Trained Models and to provide a sharable link for other users to interact with the model.
- Tech Stack:** AWS (EC2, RDS, S3), Flask, Python, MySQL, MongoDB, Docker

ACADEMICS

B. Tech in Computer Science and Engineering

Alliance University, Bangalore GPA- (3.5/4.0)

Aug 2017 - Jul 2021

Coursework: Engineering Mathematics (Probability, Statistics, Calculus), Core JAVA, Scripting Languages, Big Data Analytics

CERTIFICATIONS AND PUBLICATIONS

- [Python data structures](#), COURSERA, June 2020
- [Java programming](#): solving problems with software, COURSERA, June 2020