ASHISH AMBADAS WALE

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EDUCATION

M.S. Computer Science August 2023 - May 2025
Arizona State University, Tempe, AZ 3.56/4.0
Coursework: Natural Language Processing, Foundation of Algorithms, Data Visualization, Software Validation & Testing

B. Tech Information Technology August 2016 - May 2020
University of Pune, Pune, India 3.1/4.0
Coursework: Data Structures and Algorithms, Database Management System, Operating Systems

TECHNICAL SKILLS

Programming: Java, Python, C, RESTful API, HTML, CSS, Javascript, Bootstrap
Frameworks: Springboot, Django, React, JUnit, TestNG, Pytest
Databases: MySQL, Oracle, PostgreSQL, MongoDB
Tools: Apache Maven, Apache Kafka, Git, Jenkins, Docker, Kubernetes, MS Excel

WORK EXPERIENCE

Software Engineer | eQ Technologic, Pune, India December 2020 – June 2023

- Implemented **software architecture design patterns** in **core Java** tailored for enterprise application development enhancing **data model** creation by 30%.
- Engineered **CRUD** algorithms, devised **database** schemas, and designed **API** structures to facilitate the seamless migration of business **big data** entities from 60 connector plugins.
- Amplified data retrieval efficiency by 50% by integrating an Apache Ignite **write-through caching** mechanism.
- Set up **Jenkins CI/CD pipelines** for building **docker** images of the web application and rolling these images in the production environment.
- Developed data stream pipelines utilizing **Apache Kafka**, facilitating the smooth transition of entities between plugins and ensuring uninterrupted data flow.
- Deployed **RESTful APIs** within an **MVC** architecture leveraging **Spring Boot** and constructed datastores using **JavaScript** frameworks to dynamically populate UI elements with API data to facilitate seamless data exchange between frontend and backend systems, thus enhancing user interaction.
- **Refactored** legacy code into high-performance, reliable, well-documented form with end-to-end testing in **JUnit**.

Machine Learning Intern | Anubhooti Solutions, Pune, India May 2018 – June 2018

- Conducted **web scraping** on articles from local newspapers' websites in **Python** to generate text datasets.
- Performed **data visualization** on extensive text datasets using **NLTK** to enhance comprehension of the task.
- Employed **cleaning and reconfiguration techniques** to transform text data into machine-understandable format.
- Implemented a **text classification algorithm** using support vector machines to extract human emotions from text.

PROJECTS

TestWeaver - Unit Test Case Generator December 2023 - Present

- Developed **web application** using **Django** consisting of **RESTful API** to generate unit tests for a given code.
- Developed responsive **ReactJS** components and mapped them to respective APIs using **requests** from **Python**.
- Leveraged **Cohere** APIs to access **generative pre-trained model** and used it to generate the **unit test cases**.

Long range dependencies in Biomedical August 2023 – December 2023

- Investigated the **SciFive** and **In-BoXBART seq2seq ML classification** models along with six biomedical datasets.
- Examined the **Self Information** methodology to generate condensed prompts to enhance text information capture.
- Applied the **prompt compression** technique with 3 datasets, resulting in a **5%** improvement in testing accuracy.
- Presently surveying the **Prompt Engineering** method to publish research encompassing both reviewed methods.

Traffic Sign Recognition using small-scale CNN (Publication) August 2019 - July 2020

- Collaborated to create an **image classification model using convolutional** and other layers in TensorFlow.
- Executed extensive analysis and **literature review**, resulting in the publication at **ICCIP(2020)**.