Aditi Prabhakar Patil

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EDUCATION:

Masters of Science in Software Engineering **Aug 2023 - Present**
San Jose State University, San Jose, CA **[GPA:3.9/4.0]**
Coursework: Enterprise Distributed Systems, Enterprise Software Platforms, Data Mining

Bachelor of Technology (B.Tech) in Information Technology **July 2017 - June 2021**
Cummins College of Engineering for Women, Pune, Maharashtra India **[GPA:8.81/10.0]**
Coursework: Object-Oriented Programming, Analysis of Algorithms, Computer Networks, Machine Learning, Artificial Intelligence, Information Retrieval, Cloud Computing, Big Data and Analytics, Computer Architecture, Database Systems

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SKILLS:

Programming Languages: Python, Kotlin, Bash, JAVA, Javascript, SQL
Frameworks and Databases: Angular, Spring MVC, Spring Security, Flask, Cucumber, Android Studio
Tools and Libraries: TensorFlow, Keras, OpenCV, Scikit-Learn, Numpy, Pandas, NLP, Matplotlib, NLTK, Git

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PROFESSIONAL EXPERIENCE:

Citicorp Services India Private Limited (Citi), Technology Analyst (Pune, India) **July 2021 - Aug 2023**

- Contributed to developing new products and features for **Equity Prime Swaps** on the Client Reporting Platform. Assisted in transitioning from a monolithic swap reporting system to a microservices-based architecture.
- Redesigned two user interfaces for executing scheduler requests and processes related to **Commercial Cards** in Treasury and Trade Solutions, enhancing user experience and efficiency.
- Conducted a POC (Proof of Concept) and introduced automated testing for UI pages. Developed a **Data Lineage** Application for direct report generation from Talend Job metadata.

Technology Used: Java, Kotlin, Spring, Angular, PrimeNG, Kubernetes, RedHat OpenShift, Microservices, ElasticSearch, Jenkins, Talend..

Nife Labs Pte Ltd, Student Intern and Volunteer (Singapore, Singapore) **June 2020 – April 2021**

- Crafted Python codes for robotic machine learning applications on cognitive devices, enhancing performance with OpenVINO and facilitating decentralized workflows via Cyber Foraging.
- Collaborated with the company's founder on a **research paper** published in Data Management, Analytics, and Innovation Conference Proceedings and took on a leadership role as **Lead Technical Intern** to mentor and support new hires.

Technology Used: Python, OpenVINO, Amazon Web Services, Cyber Foraging.

Tata Communications Limited, Project Trainee (Pune, India) **April 2019 – June 2019**

- Contributed as a Project Trainee to the "**Internet Leased Lines (ILL) Migration over MPLS**", configuring **VLANs** for wide networks in Pune and ensuring seamless communication across Data-Link and Network Layers.
- Engaged in direct ILL customer interactions, offering real-time problem troubleshooting.

Technology Used: CLI, SSH, Tectia.

ACADEMIC PROJECTS:

Financial Analysis Application - Ledger Alchemy **Sept 2023-Dec 2023**

- Engineered a scalable financial analysis portal to integrate and analyze transactions from multiple bank accounts.Incorporated features like user registration, advanced data analysis, and a user-friendly dashboard, enhancing financial management and decision-making capabilities.
- Incorporated Machine Learning to Predict goal achievement timeframe for user with accuracy of 91% Implemented robust security measures including Single Sign-On (SSO) and Multi-Factor Authentication (MFA).
- Deployed the application on Oracle Cloud using Docker, ensuring scalability and high availability.

Technology Used: Node.js, Express, React, MySQL, RESTful APIs, CI/CD pipelines.

Macroeconomic Copilot Chatbot for UN SDGs (Class Hackathon Project) **November 2023**

- Developed a GPT-model based chatbot for economic research and policy analysis, tailored to aid in achieving UN Sustainable Development Goals (SDGs).
- Implemented using OpenAI's GPT for AI-driven responses, data management and real-time communication via sockets.

Technology Used: OpenAI GPT, SQL, Vector Database, Node.js.

Natural Language Processing for Indian Sign Language (Received $16000 grant from IBM) **August 2020 - May 2021**

- Developed a unique system translating Indian Sign Language into English text using an attention-based encoder-decoder model with LSTMs, integrating NLP and Deep Learning. Self-curated a dataset with 400 ISL-to-English instances from a 1,000 word ISL vocabulary
- Designed an interactive and accessible user interface, catering to both general users and individuals with verbal impairments, enhancing the usability of the ISL translation system.
- Achieved **Special Mention** in NES Innovation Award 2020-21 under Social Impact category; **filed a patent in India** (September 2023).

Technology Used: Python, MatplotLib, Sklearn, NLP, Deep Learning, HTML5, CSS3, Bootstrap, Flask.

PUBLICATIONS:

- .**"Literature Survey: Sign Language Recognition Using Gesture Recognition and Natural Language Processing",** Data Management, Analytics and Innovation, 2021 [Link]
- **"Object Recognition and Classification for Robotics Using Virtualization and AI Acceleration on Cloud and Edge,"** Data Management, Analytics and Innovation, 2021 [Link]

AWARDS AND LEADERSHIP:

- Volunteered in **Women in Machine Learning and Data Science's** (WiMLDS) Pune. [Link]
- Recognized by Wadhwani Foundation's National Entrepreneurship Network as a high-potential venture (Aug 2020 - Feb 2021, Aurangabad, Maharashtra).