ADITI PRABHAKAR PATIL

LinkedIn | (+1) 669 254 6518 | Website | Google Scholar | patiladiti752@gmail.com

EDUCATION:

Master 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   **Jul 2017 - Jun 2021**
Cummins College of Engineering for Women, Pune, Maharashtra India   **[CGPA:8.81/10.00]**
Coursework: Analysis of Algorithms, Computer Networks, ML, AI, NLP, Information Retrieval, Cloud Computing, Big Data and Analytics, Computer Architecture, DBMS, Object Oriented Programming

SKILLS:

Programming Languages: Python, Kotlin, Bash, JAVA, Javascript, SQL, TypeScript
Frameworks and Databases: Angular, React, Spring MVC, Spring Security, Flask, Cucumber, Android Studio
Tools, Libraries and Technologies: Linux, TensorFlow, Keras, OpenCV, Scikit-Learn, Numpy, NLP, Tableau, OpenAI Platform, Git, LLMs
Certifications: CCNA: R&S (Introduction to Networks and Routing and Switching Essentials)

PROFESSIONAL EXPERIENCE:

Citicorp Services India Private Limited (Citi), Technology Analyst (Pune, India)   **Jun 2020 – Aug 2023**
- Developed new features for **Equity Prime Swaps**. Assisted in transitioning from a monolithic swap reporting platform to a **microservices-based** infrastructure for secure system, improving data protection and report delivery following **Agile** framework.
- Delivered high-end technical support and business incident response with **data-driven analysis** on **OLAP Database**. Developed Kotlin scripts for custom dataset integration, ensuring tailored solutions and 97% automated report data accuracy.
- 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 and introduced an **Automated Testing framework** for UI pages. Developed a **Data Lineage** Application for direct report generation from Talend Job metadata using Design Patterns in Java.

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

Nife Labs Pte Ltd, Student Intern and Volunteer (Singapore)   **Jun 2020 – Apr 2021**
- Crafted Python codes for robotic machine learning applications on cognitive devices, enhancing performance with OpenVINO and facilitating decentralized workflows via Cyber Foraging by **optimizing network and application latency with up to 70% on average**.
- Collaborated with 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, Raspberry Pi, IoT, Edge and Cloud Computing.

Tata Communications Limited, Project Trainee (Pune, India)   **Apr 2019 – Jul 2019**
- Contributed as a Project Trainee to "**Internet Leased Lines (ILL) Migration over MPLS**", configuring **VLANs** for wide networks in Pune and ensuring seamless communication across Data-Link, Network and Transport Layers(IP/TCP).
- Engaged in direct ILL customer interactions, offering real-time problem troubleshooting and reconfiguration within an hour.

Technology Used: CLI, SSH, Tectia.

ACADEMIC PROJECTS:

Financial Analysis Application - Ledger Alchemy (Fullstack Web Application)   **Sept 2023 – Dec 2023**
- Engineered a scalable **financial analysis portal** to integrate and analyze transactions from multiple bank accounts. Incorporated features like advanced data analysis, and a data visualization dashboard, enhancing financial management and decision-making capabilities.
- Incorporated Machine Learning to **predict goal achievement timeframe** for users with an **accuracy of 91%**. Implemented robust **security** measures including Single Sign-On (SSO) and Multi-Factor Authentication (MFA) for account registration and user signups and logins.
- Deployed the web application on Oracle Cloud using Docker, ensuring scalability and high availability in a distributed architecture.

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

Macroeconomic Copilot Chatbot for UN SDGs (CMPE273 Hackathon Project)   **Nov 2023**
- Developed a **GPT-model-based chatbot** for economic research and policy analysis, tailored to aid in achieving UN Sustainable Development Goals (SDGs). Designed and developed a distributed architecture for the project along with an LLM (GPT) plugin for generating 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)   **Aug 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 ISL translation system.
- Achieved **Special Mention** in NES Innovation Award 2020-21 under Social Impact category; **filed a patent in India** (Sept 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"** [Link]   ICDMAI
- **"Object Recognition and Classification for Robotics Using Virtualization and AI Acceleration on Cloud and Edge,"**[Link]   ICDMAI

AWARDS AND LEADERSHIP:
- Volunteered in **Women in Machine Learning and Data Science's** (WiMLDS) Pune. [Link]
- My **Entrepreneurial Venture**: "ToDoor Services" was **recognized as a high-potential venture** by Wadhwani Foundation's National Entrepreneurship Network (Aug 2020 - Feb 2021)