

# Sai Vishal Matcha

Newark, CA | [sai.vishal.17.24@gmail.com](mailto:sai.vishal.17.24@gmail.com) | 951-548-9412 | [Leetcode](#) | [LinkedIn](#) | [Github](#) | [vishalmatcha.com](http://vishalmatcha.com)

## PROFESSIONAL SUMMARY

- Over 3 years of experience in **Machine Learning (ML) and Deep Learning (DL)** with hands-on experience in **Large Language Models (LLMs) and Generative AI**, including **model development, fine-tuning, and deployment**, with strong **collaboration and communication skills** to work effectively in cross-functional teams.
- Strong programming skills in **Python** with proficiency in **TensorFlow, PyTorch, and scikit-learn**, along with experience in **MLOps**, model optimization, and deployment using **Docker, Kubernetes, and cloud platforms (AWS, GCP, Azure)**.
- Experience in building **scalable ML pipelines**, including **data preprocessing, feature engineering, hyperparameter tuning, and model monitoring** in production environments.
- Proficient in working with **large-scale datasets, SQL & NoSQL databases**, and cloud-based solutions for production-ready ML models.

## TECHNICAL SKILLS

Programming Languages	Python, SQL, C++
ML & DL Frameworks	TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, Matplotlib, Lightning
MLOps & Model Deployment & Visualization	Docker, Kubernetes, REST, CI/CD (Jenkins), Tableau, PowerBI, Matplotlib, excel, seaborn
Cloud Platforms	AWS (EC2, S3, IAM, Lambda), Microsoft Azure (Azure pipelines)
Database Technologies	PostgreSQL, MySQL, MongoDB
Version Control	Git, GitHub, Gitlab
Development Tools & IDEs	Jupyter Notebook, PyCharm, Visual Studio Code, Anaconda
Testing & Model Validation	Pytest, Unittest
Operating Systems	Windows, Linux, macOS, ubuntu

## PUBLICATIONS

- N. H. Vardhan, R. M, **V. R. S. V. Matcha**, S. R. S. Reddy and V. N. Chowdary, "[UHI Web Application: Empowering Healthcare with Disease Prediction for Seamless Doctor Consultations](#)," *IEEE Global Conference for Advancement in Technology (GCAT)*, Bangalore, India, 2023
  - Designed and deployed **deep learning models** leveraging **NLP techniques** for **symptom prediction and automated disease diagnosis**, enhancing healthcare accessibility.
  - Integrated **ML-driven predictive analytics** to optimize doctor recommendations and patient triage, improving efficiency in medical consultations.
  - **Environment:** React.js, Flask, PostgreSQL, TensorFlow, Scikit-learn, NLTK, OpenAI APIs, Google Maps API, AWS, REST APIs

## PROFESSIONAL EXPERIENCE

### Software Engineer (Student Assistant), University of California.

Riverside, CA | Jan 2024 – Dec 2024

- Developed the **CupCake Carbon Cycle Model**, a **React and Python-based web application**, enhancing **data processing efficiency by 30%** through optimized ML-driven analytics and workflow automation. [[code](#)]
- **Built a Retrieval-Augmented Generation (RAG) chatbot** using **TensorFlow and Elasticsearch**, automating document retrieval and improving **information retrieval and research productivity**.
- **Environment:** React, Python, Flask, PostgreSQL, TensorFlow, FastAPI, Elasticsearch, HTML5, CSS3, JavaScript, Git, Linux

### Associate Technical Solutions Engineer, Databricks

Bangalore, KA | Jun 2022 – Sep 2023

- **Contributed to the development of Dolly LLM**, gathering user feedback and implementing updates to **enhance model performance, prompt engineering, and usability**, ensuring optimized AI-driven outputs.
- **Optimized ML data pipelines** by leveraging **big data processing, ETL best practices, and cloud platforms**, while troubleshooting **Spark and Databricks** issues to improve **scalability, efficiency, and SLA compliance**.
- **Environment:** Spark, Databricks, Python, SQL, Data Pipelines, Big Data, ETL Processes, Apache Kafka, Snowflake Cloud, Technical support, Salesforce, project management, Domo, ML flow, Data modeling, Customer Service

### Project Trainee, R.I.N.L. Steel Plant

Visakhapatnam, AP | Sep 2021 – Jun 2022

- Developed a **full-stack data analytics platform** to analyse **vehicle and raw materials transport data**, optimizing logistics insights.
- **Built interactive ML-powered data visualizations**, enabling **data-driven decision-making** through intuitive, real-time dashboards.
- **Environment:** FastAPI, Flask, React, PostgreSQL, Docker, Plotly Dash, REST APIs, HTML, CSS, Oracle, Data Visualization, Tableau

## PROJECTS

**Smoking Prediction using Machine Learning** – Developed and compared multiple ML models, including **Gradient Boosting and Neural Networks**, to classify smokers based on health metrics with **85% accuracy**. [Detailed Explanation](#)

**Reddit Sentiment Analysis Using NLP & Deep Learning** – Analysed Reddit comments using **TF-IDF, Word2Vec, and BERT embeddings**, and trained a **BERT-based sentiment classifier** for automatic sentiment prediction. [Detailed Explanation](#)

## EDUCATION

### University of California | MS Computer Science

Sep 2023 – Dec 2024

Riverside, CA

GPA: 3.71

**Relevant Coursework:** *Natural Language Processing, Machine Learning, Artificial Intelligence, Reinforcement Learning, Neural Networks*

### Amrita Vishwa Vidyapeetham | BS Computer Science

Jul 2019 – Apr 2023

Bangalore, KA

GPA: 3.6

**Relevant Coursework:** *Operating Systems, Data Structure and Algorithms, Computer Security, Computer Networks, TOC, Distributed Systems*