MACHHA RAVI KIRAN

+91 9248601675 | ravikiran.m1419@gmail.com | LinkedIn | GitHub

SUMMARY

Data Scientist with robust experience in machine learning and computer vision, transitioning into an AI Engineer role. Successfully developed projects including sign language detection and multilingual conversational web applications using deep learning and NLP. Skilled in Python, data preprocessing, and model optimization with tools like TensorFlow and PyTorch. Eager to contribute to designing and deploying innovative AI solutions in cross-functional teams.

TECHNICAL SKILL

- **Programming & Scripting**: Python, Flask
- **Machine Learning & AI**: Machine Learning, Deep Learning, Artificial Intelligence, Generative AI, NLP, Computer Vision, LLM
- **Data & Analytics**: SQL, Data Science, Data Preprocessing, Analytical Skills
- **Cloud & DevOps**: AWS, Cloud Platforms, Version Control (Git)
- **API Development**: Web API

Work Experience

TCS | Quoident Developer **Nov 2024 - Present**

Chennai

- Developed and customized customer communication documents using Quaident for Customer Management Services (CMS)
  Automated document templates and workflows to reduce manual effort and improve delivery accuracy.
  Collaborated with cross-functional teams to gather requirements and implement document solutions.

Apprenticeship

ArchOver Solutions **Sep 2022 - Mar 2024**

Data Scientist and Computer Vision

- Designed machine learning models using Python and AWS to forecast customer return behavior, enhancing prediction accuracy.
- Engaged with key stakeholders to gather detailed business requirements, ensuring alignment with project goals.
- Engineered advanced machine learning algorithms for predicting product returns, contributing to optimized inventory management processes.
- Collaborated with cross-functional teams to mitigate financial impacts of product returns on overall profitability.
- Utilized data mining and machine learning techniques to predict ratings and reviews for Amazon products with high accuracy.
- Worked closely with business stakeholders to tailor predictive models that met specific business objectives and supported strategic decision-making.
- Created and validated algorithms to project future product reviews, aiding in proactive business planning and decision support.
- Analyzed customer feedback through advanced analytics to identify actionable patterns and trends.
- Leveraged AWS cloud services to deploy scalable machine learning models, integrating robust cloud computing solutions for enhanced performance.
- Integrated machine learning techniques in supply chain management, focusing on optimizing Last Mile Logistics (LLM) operations through real-time data analysis and automated route optimization.
- Led the development of 'Secure and Resilient AI for Medical Imaging,' demonstrating a commitment to advancing healthcare technology using AI.
- Pioneered a system with an abstraction layer for detecting adversarial attacks, thereby enhancing the resilience of medical imaging AI.
- Implemented encryption mechanisms and secure transmission protocols to safeguard patient data during image analysis.
- Conducted rigorous evaluations using deep learning techniques to assess system performance against adversarial attacks, improving diagnostic accuracy in healthcare AI.
- Designed a privacy-respecting system for hospitals to monitor mental health and track patient behavior, ensuring compliance with data protection regulations.

PSCMR - Final Year Project, B.Tech – Vedanta Voice: Unlocking Spiritual Wisdom for All **Mar 2024 - Jun 2024**

Final Year Project

- Developed a pioneering web application using Flask and Python to deliver ancient spiritual teachings in multiple languages, including Telugu, Hindi, English, and Sanskrit.
- Implemented advanced language models and algorithms (such as BERT) to enable multilingual conversational capabilities for deep understanding and rapid information retrieval.
- Designed and integrated sophisticated features for audio content delivery and interactive user experiences.
- Processed large textual datasets and performed data preprocessing to train and enhance the model's conversational skills.
- Conducted rigorous testing and user feedback sessions to optimize platform performance and user engagement.

PSCMR - Computer Vision-Based Attendance System **Jul 2022 - Sep 2022**

Computer Vision-Based Attendance System

Implemented a computer vision-based student attendance system.

- Implemented a computer vision-based student attendance system using AWS and Flask, resulting in streamlined attendance processes and reduced manual errors
- Interacted with educational stakeholders to gather system requirements.
- Developed and deployed a system for automated student attendance tracking.
- Contributed to enhancing efficiency in educational institutions.

PSCMR - Certificate Management System **Mar 2022 - Apr 2022**

Certificate Management System

- Designed and developed a robust web application using HTML, CSS, PHP, and MySQL to manage certificates for students and college faculty, enhancing data accessibility and management
- Implemented features for assigning counselors to students and class teachers, and administering achievements for both staff and students.
- Ensured secure access control, allowing student achievements to be visible to staff and admin while restricting staff achievements to admin only.
- Collaborated with stakeholders to gather system requirements and ensure the system met educational institution needs.
- Deployed the system successfully, contributing to improved administrative efficiency and data management within the institution.

Indian Servers **Mar 2022 - May 2022**

Computer Vision-Based Sign Language Detection System

Developed and implemented a computer vision-based sign language detection system.

- Developed and implemented a computer vision-based sign language detection system using deep learning and NLP techniques
- Interacted with stakeholders to understand the needs, ensuring alignment with business goals.
- Developed and implemented computer vision algorithms to accurately interpret sign language gestures, achieving a 90% accuracy rate and improving communication accessibility for over 100 users.
- Contributed to enhancing accessibility for individuals with hearing impairments.

EDUCATION

Potti Sriramulu Chalavadi Mallikarjunarao College of Engineering & Technology **Jul 2020 - Jun 2024**

B. Tech, Computer Science Engineering (Artificial Intelligence & Machine Learning) *Vijayawada*

- **GPA:** 8 CGPA

Sri Chaitanya Junior College **Apr 2018 - Mar 2020**

Intermediate, MPC *Vijayawada*

- **GPA:** 9.29 CGPA

Coasts High School **Mar 2008 - Mar 2018**

SSC *Vijayawada*

- **GPA:** 9.33 CGPA