VAIDIK VADHAVANA

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Education

University of Southern California   Aug. 2024 – May 2026
Master of Science, Computer Science
Coursework: Analysis of Algorithms, Database Systems

University of Mumbai (APSIT)   Dec. 2020 – Apr. 2024
Bachelor of Engineering, Computer Engineering   GPA – **9.28/10.0**

Work Experience

USC Viterbi School of Engineering   Los Angeles, CA, U.S.A
Graduate Research Assistant   Oct. 2024 – Present
- Developed a deep learning model using Vision Transformer (ViT) and ResNet50 for Glaucoma detection with 95.84% accuracy.
- Analyzed large datasets and expanded the model for detecting further complications like Diabetic Retinopathy.

EduSkills Foundation (AICTE)   Mumbai, MH, India
Machine Learning Intern   Jul. 2022 – Sept. 2022
- Leveraged advanced machine learning algorithms and executed them on Amazon Web Services using EC2 and S3 to analyze current trends of data.
- Performed extensive data cleaning and preprocessing on large datasets using Python libraries (Pandas, NumPy), improving model performance by 20% through feature engineering and handling missing values.

APSIT Skills   Mumbai, MH, India
Software Developer Intern   Sept. 2021 – Nov. 2021
- Delivered ML training workshops to 30+ students, enhancing communication skills and improving student understanding of foundational AI concepts.
- Automated data analysis processes using machine learning, reducing manual workload by 50%

Projects

British Airways Review Analysis Tool | Tableau, SQL   Dec. 2024
- Designed an interactive analytical tool using Tableau to visualize British Airways reviews, integrating SQL queries to preprocess and structure data for insights.

APSIT Community | Python(Flask), React, MongoDB, AWS   Jun. 2023 – Mar. 2024
- Led the development of a social media platform to encourage inter-department communication between students.
- Increased platform security by executing JWT authentication and used AWS services like Amplify, Elastic Beanstalk, and S3 for improvement in application scalability.

NutriLytik for Diabetic Patients | ML, Flutter   Jun. 2022 – Mar. 2023
- Constructed a mobile application designed to provide diet recommendations using machine learning and scan food labels, enabling diabetic patients to effectively monitor their diets and maintain health safety.
- Engineered APIs for personalized meal plans based on a survey of 170+ diabetic patients and created OCR scanner for real-time nutritional label analysis with data visualization, increasing user satisfaction.

Hire-Me - Resume sorter | Python (pdfminer, nltk, spacy, tkinter)   Jan. 2022 – Mar. 2022
- Engineered a resume sorting app with tkinter GUI, employing NLP for analyzing documents.
- Created an advanced resume parsing solution leveraging natural language processing techniques, resulting in a reduction in manual sorting time.

Skills

Languages, Frameworks & Web Technologies: Python, Java, JavaScript, Solidity, C, C++, SQL
Frameworks & Web Technologies: HTML5, CSS3, Node.js, React, Flask, Django, PyTorch, TensorFlow, Scikit-learn
Databases: PostgreSQL, MySQL, SQLServer, MongoDB
Cloud and Tools: Power BI, AWS, Google Cloud, Heroku, Git, Github, Jenkins, Docker, DevOps