SAI BHARGAVI PUSULURI

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SUMMARY

- Results-driven Computer Science graduate with hands-on expertise in Python, SQL, R, React, and AWS, with a strong foundation in web development.
- Certified in AWS, with hands-on experience in building and deploying scalable applications, and translating complex technical requirements into efficient, reliable software solutions.

EDUCATIONAL QUALIFICATION

Kent State University, Ohio-USA — Dec 2024
Master of Science (Computer Science)

Prasad V Potluri Siddhartha Institute of Technology, India — May 2023
Bachelors in computer science and engineering

SKILLS

Languages:	SQL, Python (Pandas, NumPy, SciPy, Matplotlib, Scikit-Learn, TensorFlow), R, React, C Language, HTML, CSS
Databases:	MySQL, MongoDB
Tools:	Microsoft Excel, Microsoft Word, Microsoft Power Point, Power BI, Tableau, SAP, JIRA, GIT
Cloud Services:	Amazon Web Services

WORK EXPERIENCE

Python Developer (Contract), Barclays — Feb 2025 – Present

- Designed and developed scalable Python applications for data processing, API integration, and automation of financial workflows.
- Implemented robust ETL pipelines using Pandas, NumPy, and SQL to process large datasets from multiple sources including AWS S3 and Snowflake.
- Collaborated with cross-functional teams to design, develop, and deploy Python applications, ensuring proper integration with front-end systems and databases.

Software Engineer, Nykaa (Intern) — Jun 2022 – May 2023

- Assisted in the development and maintenance of software applications, including writing clean, efficient Python and React code for various features and bug fixes.
- Collaborated with senior engineers to implement and test new functionalities, contributing to front-end and back-end development, ensuring seamless integration.
- Participated in code reviews, identified areas for improvement, and helped optimize performance by refactoring inefficient code and optimizing database queries.

PROJECTS

Crop Recommender System Based on Ensemble Classifiers - accepted for InCACCT

- Developed a machine learning-based crop recommendation system using Python to support farmers in selecting the most suitable crops based on soil nutrients and weather conditions.
- Trained the model on historical agricultural data using ensemble learning algorithms like Gaussian Naive Bayes, Logistic Regression, and SVM, achieving a high accuracy of 99.31%.
- Created a user-friendly web application using React to make the recommendation system easily accessible to farmers for real-time crop suggestions.
- **Tools used:** Python, React, Pandas, NumPy, scikit-learn, TensorFlow, Jupyter Notebook, GitHub.

Social Distance Detection

- Designed and implemented a Python-based application leveraging OpenCV and deep learning models to monitor social distancing in real-time using video feeds from cameras and drones.
- Implemented YOLOv3 for object detection and OpenCV for distance measurement between detected individuals.
- Developed an interactive web interface to visualize violations and crowd density, ensuring easy access to data and system controls for decision-makers.
- **Tools used:** Python, React, OpenCV, YOLOv3, TensorFlow, NumPy, Pandas, Matplotlib, VS Code, GitHub

Diagnosis of Herpes Zoster (HZ)

- Developed an AI-powered mobile diagnosis system for early detection of Herpes Zoster, reducing clinical workload and diagnosis costs.
- Trained and evaluated MobileNetV3 on clean and corrupted images, achieving a high classification accuracy of 95%, and deployed the model using Streamlit for real-time diagnosis.
- **Tools used:** Python, TensorFlow, Keras, MobileNetV3, Streamlit, NumPy, Pandas, OpenCV, Matplotlib, VS Code, GitHub

Real-time Chat Application

- Developed a secure, cloud-based messaging platform enabling seamless real-time communication.
- Implemented Flask for backend services, MySQL for database management, and WebSockets for real-time message transmission.
- Deployed the application on Google Cloud Platform (GCP) to ensure scalability, security, and high availability.
- **Tools used:** Python, Flask, MySQL, WebSockets, Google Cloud Platform (GCP), HTML, CSS, JavaScript, VS Code, GitHub

CERTIFICATIONS

- AWS Certified Solutions Architect – Associate