Siddhi P. Amilkanthwar

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Education

San Diego State University, United States **Aug 2024 – May 2026**
Master of Science in Computer Science GPA: 04/04
Related Coursework: Data Structures, AI/ML, Web Development, Distributed Systems, Data Structuresand Algorithms.

Vishwakarma Institute of Technology, India **Aug 2019 – Aug 2023**
Bachelor of Technology in Electronics and Telecommunication GPA: 04/04
Related Coursework: Java, Python, Database Management, Data science, Object-Oriented Programming, AI/ML, Data Structures and Algorithms.

Professional Experience

Syngenta India Private Limited, India **Jul 2023 – Apr 2024**
Functional Analyst | AIP, Typescript, Python, JavaScript, HTML, CSS, Angular JIRA

- Worked closely with business stakeholders to capture and document requirements, transforming complex business objectives into clear, actionable functional specs and technical solutions, cutting project delays by 15% and enhancing communication efficiency.
- Led the entire development of IDOC monitoring system for a reputable global consultancy firm using the SAP Application Interface Framework, JavaScript, TypeScript, HTML, CSS, and Angular, resulting in a 30% increase in user engagement.
- Incorporated REST APIs to facilitate seamless, real-time data exchange between mobile apps and backend systems, resulting in a 10% reduction in data retrieval time and substantial enhancement of app performance and reliability.
- Integrated Data Manager and Import Manager to automate data workflows, ensuring smooth, uninterrupted operations.
- Managed the entire project lifecycle from inception to deployment, utilizing Agile Scrum methodology to deliver high-quality solutions 10% ahead of schedule, with zero major bugs in production releases.

Syngenta India Private Limited, India **Aug 2022 – Jun 2023**
Software Development Intern | FastAPI, Python, PostgreSQL, Docker, Kubernetes, JIRA, HTML, CSS, JavaScript, Typescript

- Led the software development of multi-generational active learning and auto-labeling algorithms, increasing labeling efficiency by 35%. Built and optimized scalable backend APIs using FastAPI, Python SDK, and PostgreSQL, boosting system performance by 25%.
- Deployed containerized microservices with Docker and Kubernetes on AWS, ensuring seamless scaling and high availability. Created interactive dashboards with HTML, CSS, JavaScript, and real-time API integrations for enhanced data visualization.
- Collaborated in Agile team, and managed tasks with Jira for efficient project delivery.

Projects

SwiftShop: Shopping App **Aug 2021 – Dec 2021**
Team Lead | Java, Android studio, MySQL, REST API, SQLite

- Engineered a robust Android application using Java and MySQL, incorporating secure user authentication along with functionalities such as real-time order tracking for over 1,500 products and an intuitive shopping cart system.
- Integrated REST APIs for seamless search and filtering, improving product discovery and overall app performance.
- Achieved performance using SQLite for local data storage and implemented a modular architecture for scalability and maintainability.

An Assistive Aid for Recognition of Known Face and its Tracking **Aug 2021 – Dec 2021**
Team Lead | Python, OpenCV, Git/GitHub, Raspberry Pi

- Developed a real-time face recognition and tracking system using Python, Raspberry Pi, and OpenCV, incorporating image processing techniques like SIFT and LBP for feature extraction and dimensionality reduction, achieving 85% accuracy with the LBPH classifier.
- Implemented machine learning models such as KNN, Logistic Regression, Random Forest, Decision Tree, and SVM for classification, and integrated an Iris Estimation algorithm for real-time proximity detection with audio feedback via Raspberry Pi.
- Accelerated system performance using metrics like accuracy, precision, recall, and F1 score, and followed Agile methodologies.

Real-Time Community Mobility Dashboard **Jan 2021 – Apr 2021**
Team Lead | React, TypeScript, WebSockets, JavaScript, HTML/CSS, Node.js, Git

- Developed a real-time mobility dashboard to track sustainable transportation (buses, bikes, scooters), integrating WebSocket and REST APIs for live status updates, route suggestions, and interactive maps using React, TypeScript, Redux, and Mapbox
- Implemented social features like community challenges and sustainability tracking, while ensuring app stability and performance through Jest and Cypress testing, continuous deployment with GitHub Actions, and web optimization for fast load times across browsers.

Publications

- Patent for 'An Artificial Intelligence Based Handheld Electronic Travel Aid for Visually Impaired People' Patent Number 2023/03214, Jun 2023.
- Three Finger Robotic Gripper for Irregular Shaped Objects - Scopus-indexed Springer Book Series "Smart Innovation, Systems and Technologies", Nov 2023.
- AI Based Handheld Electronic Travel Aid for Visually Impaired People, IEEE, issued in 2022 | DOI 10.1109/I2CT54291.2022.9823962
- Iot Greenhouse Monitoring, IRJET, issued in 2021| e-ISSN: 2582-5208

Skills

Programming and Databases: Java, Python, JavaScript, R, SQL, C/C++, TypeScript, HTML, CSS
Tools: React, Android Studio, PyCharm, Eclipse, Jupyter Notebook, Visual Studio, RStudio
Project Management: Agile, Jira, Microsoft Project, OpenProject
Machine Learning Libraries: NumPy, Pandas, TensorFlow, PyTorch, OpenCV, Keras, Scikit-Learn, Seaborn
Certifications: Data Structures and Algorithms in Java , Embedded Hardware, Practical DSA, Java