SWANAND SANJAY KHONDE

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EDUCATION

RICE UNIVERSITY Houston, TX
Master in Computer Science 08/23 - 12/24
GPA: 3.89 / 4.0
Coursework: Design and Analysis of Algorithms, Web Development, Parallel Computing, Machine Learning
Graduate Teaching Assistant – Computer Security

VISHWAKARMA INSTITUTE OF TECHNOLOGY PUNE Pune, India
Bachelor of Technology in Computer Engineering 08/17 - 06/21
GPA: 8.93 / 10
Coursework: Data Structures and Algorithms, Operating Systems, Machine Learning, Artificial Intelligence.

PROGRAMMING / TECHNICAL SKILLS / CERTIFICATIONS

Programming Languages & Frameworks: Python, Java, JavaScript, SQL, C/C++, Flask, Nodejs, React.js, Express.js.
Certifications: Secure Code Warrior – White Belt Java (80.75%), Yellow Belt Java (81.26%), Orange Belt Java (70%)
Familiar With: NumPy, Pandas, Matplotlib, Agile, CI/CD, Git, Jira, Tensorflow, Groovy, Pytorch, Jasmine, Junit, OpenMP, cilkplus.
Other Tools: Service Now, Ansible, Jenkins, Oracle Database, Geneos, Grafana, Droit, Load Trade, Unix CLI, MongoDB.

EXPERIENCE

HSBC TECHNOLOGY INDIA, Pune-MH, India 08/21 - 06/23
Software Engineer, Shared Infrastructure Services, Trade and Transaction Reporting

- Designed and developed 'Load Trade Archiving Service', a microservice platform using API gateways.
- Utilized python flask to implement robust backend service APIs, complemented by React for frontend development, significantly improving data accessibility and reducing weekly IT team search time by 30 mins per team member.
- Received 'Star Performer' Award from HSBC in Q1, 2023 for 'Load Trade Archiving Service' project, an award presented to only 20 individuals organization-wide for exceptional performance.
- Developed 'Service Now checker plugin', an ansible callback plugin to validate change record details before deploying changes to production.
- Created a spring boot application to replicate Service Now checker plugin, which provided api endpoints to validate the change records for deployments using tools other than ansible (example - Jenkins)
- Collaborated with AI team at HSBC and demonstrated a proof-of-concept of deep learning chatbot which answered frequently asked questions by business users. Received "Pat on the back" Award from HSBC in Q2, 2022 for this project.
- Managed Unix server deployments, supported diverse tools, and oversaw environments including UAT, OAT, and production.

OPTIMUM DATA ANALYTICS, Pune-MH, India 08/19 - 01/20
Machine Learning Intern, Industry co-op

- Conceptualized and executed 'Document Classification using visual parameters', a deep learning project aimed at streamlining document categorization (letters, emails, resumes, invoices, etc.) for user convenience.
- Employed a Convolutional Neural Network (CNN) model for classification, achieving a raw training accuracy of 95.7% and a test accuracy of 83%.

ACADEMIC PROJECTS

RICE UNIVERSITY, Houston, TX 08/23 - 12/23
Social Networking Application, Department of Computer Science.

- Designed and implemented a social networking application, leveraging the MERN stack (MongoDB, Express.js, React, Node.js) to create a robust, full-stack solution.
- Focused on creating an intuitive user experience with React for the frontend, while building efficient server-side application using Express.js and Node.js. Used MongoDB for scalable data storage and management.

VISHWAKARMA INSTITUTE OF TECHNOLOGY, Pune-MH, India 08/20 - 01/21
Capstone Project. Structure from motion (Group of 4), Department of Computer Engineering.

- Implemented a specialized Structure from Motion (SfM) algorithm optimized for architectural exteriors, generating 3D models.
- Developed an algorithm that reconstructed a 3D point cloud from the image's inherent geometry, providing a resource for photogrammetry applications.
- Generated point clouds from the Fountain P10 and Herz-Jesus P8 image sequences, achieving mean reprojection errors of 6.50 and 8.37, respectively. These point clouds enhanced the accuracy of architectural reconstructions.