MONISHA SYDAM

405-762-8745 • msydam56@gmail.com • https://www.linkedin.com/in/monisha-sydam-468221204/

PROFESSIONAL EXPERIENCE

Data Engineer | Oklahoma State University, Stillwater, OK | **Jan 2022 – Present**

- Developed React app improving face detection accuracy by 95% using advanced MTCNN and Implemented customized FaceNet model with 99% success rate for unique facial features
- Employed DBSCAN clustering to group 1698 images into 75 distinct face encoding clusters and built robust database system for storing and managing 40,000 images
- Empowered high school teachers with Reinforcement Learning Car Racetrack app, increasing student understanding by 40% and achieved 90% increase in student engagement for Reinforcement Learning and autonomous driving
- Led development of medical report visualization app with 99% accuracy rate for user-uploaded images and engineered dashboard for insightful data visualization, resulting in 50% efficiency improvement

Software Engineer | TCS, Bangalore, India | Applied Materials, CA, USA| **Jun 2021 - Dec 2021**

- Achieved a 10x reduction in processing time by developing highly optimized backend for critical applications, including Financial Data Extraction and Image Search using HDFS and Hadoop
- Extracted and streamlined financial data from diverse open-source documents with 99% accuracy
- Optimized data extraction and image search capabilities by seamlessly deploying high-performance models using the Cloudera workbench, resulting in a 30% improvement in processing speed and enabling faster, data-driven decisions

Machine Learning Engineer | IIT Madras Research Park | (TCS), Bangalore, India | **Aug 2018 - Jun 2021**

- Revitalized operational efficiency by optimizing till mix and labor costs, catapulting retail clients to achieve an exceptional 20% surge
- Employed state-of-the-art techniques like SARIMA and queuing theory to forecast customer rates and estimate service times, improving planning accuracy by 15%
- Implemented robust PySpark scripts for pricing, driving a 10% increase in utilization of resources
- Collaborated seamlessly with industry experts to fine-tune pricing strategies using weather, demographics, and competitor data, fueling an extraordinary 30% upswing in profits

ACHIEVEMENTS and CERTIFICATIONS

- Secured 2nd place in OSU Startup Frenzy 2022 competition for a pioneering sustainable product application
- Led development and patent process of innovative Till Optimizer Mix, increasing till management efficiency by 20%
- Received **CS Outstanding Scholar Award** from Oklahoma State University
- Completed Summer Engagement Program 2023 conducted by **Paycom**

CONFERENCES

Presented "A Digital Image Library" at Texas Conference on Digital Libraries (TCDL) 2023 in Austin, Texas.

Poster at "The OAK Supercomputing Conference" (Spring 2023) (April 5-7) in Stillwater, Oklahoma.

EDUCATION

Master of Science | Computer Science | Oklahoma State University, Stillwater, OK | GPA: 3.85 | Jan 2022 – Dec 2023

Projects: PySpark Transformers for Machine Learning application | Stock Simulation iOS App | ImageNet-Based Classification of USDA Satellite Images for Enhanced Agricultural Land Monitoring | React Application for Data Analysis

TECHNICAL SKILLS

Programming Languages: Python, Java, C, SQL, Swift, Kotlin | **Data Analysis**: Data structures, Algorithms | **App Development**: Android, iOS, web Applications | **Frontend**: React, HTML5, CSS3, Postman | **Visualization**: Tableau, GraphQL, Neo4j, Pygame, Excel | **Big Data**: PySpark, Kafka, Neo4j, GraphQL | **Data Engineering**: MLOps, Data Models, Optimization, Cloudera | **Cloud**: AWS, Heroku, Git, Bit Bucket | **Libraries**: PyTorch, TensorFlow, OpenCV, Keras | **Data Science**: Statistical Learning, Predictive Learning, Time Series | **Other Skills**: JIRA, Agile, SDLC