Anish Hota

857-390-2275   ahota4@asu.edu   linkedin.com/anish-hota   github.com/AnishHota   anishhota.com

Experience

Machine Learning Intern   May 2023 - August 2023
Shamrock Foods   *Phoenix, AZ*
- Applying diverse machine learning and deep learning models to analyze large sets of time series data and forecast product sales with improvements in accuracy by 9%.
- Engineered an anomaly detection system using CNNs within Databricks. Oversaw the end-to-end pipeline, including data ingestion, data handling, storage of model artifacts, and model serving, all within the Databricks environment.
- Collaborated with a team of interns to formulate and present multiple solutions demonstrating the potential for a 15% reduction in customer returns and potential cost savings of $740,000.

Research Aide: Image Recognition — Computer Vision   February 2023 - May 2023
Arizona State University   *Tempe, AZ*
- Developed an explainable object recognition model using PyTorch to detect frames of interest in real-time video footage, based on identified objects.
- Utilized image annotation tools such as v7labs to extract and annotate images/frames, creating customized datasets that aligned with project requirements.

Data Engineer   July 2019 - June 2022
HSBC Technology   *Hyderabad, India*
- Led a team to deliver critical reports for a global system, utilizing Datastage and implementing DevOps practices such as Jenkins, GitHub, and CI/CD pipelines. Managed large-scale data sets encompassing the information of 60,000 customers.
- Developed an end-to-end process using ETL to automate a dashboard for product governance data, automating 15 out of 50+ data sets, with a volume of 13 million records. Reduced manual efforts and space consumption by 27% through the automation of 50+ SQL scripts using DataStage.
- Enhanced SQL code and delivered additional reports to an international European bank. Analyzed and resolved over 40 defects in existing reports, saving over 96 hours of manual work every month.
- Awarded 'Pat on the back' in Q1 2021 and 'Circle of Excellence' award in Q2 2021.

Education

Arizona State University   May 2024
MSc in Computer Science (GPA: 4.22 / 4.00)   *Tempe, AZ*
KIIT University   2015-2019
B.Tech in Computer Science and Engineering   *Odisha, India*

Projects

Polyp Segmentation in colonoscopy videos | *Python, Pytorch, WandB, d3.js*
- Built an image segmentation model using UNet and UNet++ architecture in Pytorch to segment out polyps in frames extracted from colonoscopy videos, achieving an impressive intersection over union (IoU) score of 0.72.
- Revised the problem to a weekly supervised segmentation model using a modified CCAM architecture.

Chest X-ray Disease Classification | *Python, Pytorch, transformers, WandB*
- Implemented various Swin transformer architectures to develop a disease classification model, achieving 88% accuracy in accurately identifying 14 different types of diseases from chest X-ray images. Leveraged Swin-Base architecture for optimal results.
- Completed additional projects including instance segmentation of organs in chest X-rays.

Object Detection Web App | *Python, tensorflow.js*
- Employed YOLO for object detection and TensorFlow.js for deployment to create a real-time object detection web application capable of identifying 80 different objects on my website.

Technical Skills

Languages: Python, SQL
Technologies: PyTorch, Keras, IBM Datastage, Teradata, d3.js, Git, Control-M, Jenkins, wandb, MLFlow, Docker, AWS, Azure, Databricks
Concepts: Machine Learning, Computer Vision, ETL, Deep Learning, Data Science, CI/CD, DevOps, MLOps, Data Analysis, Data Visualization, Cloud Computing