Anish Hota

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SKILLS

Computer Vision, Python, Deep Learning, Machine Learning, Pytorch, Azure Databricks, Data Visualization(d3.js)
ETL, Datastage, SQL, DevOps, Git

EXPERIENCE

Machine Learning Intern
Shamrock Foods   **May 2023 - August 2023，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%.
- Collaborated with a team of interns to formulate and present multiple solutions, including an Anomaly Detection system, demonstrating the potential for a 15% reduction in customer returns and potential cost savings of $740,000.
- Led the proof-of-concept (POC) initiative to apply artificial intelligence (AI) across various aspects of the company, with the aim of establishing a dedicated data science team.

Research Aide: Image Recognition | Computer Vision
Arizona State University   **February 2023 - May 2023，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.
- Collaborated with a team of researchers to refine and optimize the object recognition model, iterating on model architecture and hyperparameters.

Software Engineer/Trainee Software Engineer
HSBC Technology   **July 2019 - June 2022，Hyderabad, India**
- Led a team to deliver critical reports for a global billing system, utilizing Datastage and implementing DevOps practices such as Jenkins, GitHub, and CI/CD pipelines. Handled tariffs for 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.

PROJECTS

Computer Vision for Medical Imaging
Personal Project • October 2022 - March 2023
- Developed a disease classification model utilizing a Swin transformer to accurately classify 14 different types of diseases in chest X-ray images.
- 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.
- Completed additional projects including instance segmentation of organs in chest X-rays, quality assessment of frames, and polyp detection in colonoscopy videos.

Hand Gesture Digit Recognition with GUI
Undergrad collaborative project • January 2019 - April 2019
- Designed a GUI application using Python, OpenCV, machine learning, and Tkinter to recognize English handwritten digits, achieving 89% accuracy.
- Re-engineered the project by developing a real-time gesture recognition GUI application using Python, OpenCV, deep learning, and Tkinter. Achieved 82% accuracy in recognizing images of hand gestures representing digits.

EDUCATION

MSc in Computer Science
Arizona State University • Tempe, AZ • 2024 • GPA: 4.00

B.Tech in Computer Science and Engineering
KIIT University • Odisha, India • 2019 • GPA: 8.61

INVOLVEMENT

Data Science Team Mentor
Codepth • November 2019 - November 2020
- Mentored a team of five data scientists in executing client projects, which involved web scraping, data analysis, and report generation using Python, BeautifulSoup, Pandas, and Seaborn.