Lenwyn Lobo

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EDUCATION

Constructor University (formerly Jacobs University Bremen) Bremen, Germany
Master of Science (MSc) Sept 2021 - Aug 2023
Data Engineering
CGPA: 1.96
Relevant Coursework: Data Analysis, Artificial Intelligence, Deep Learning, Image Processing, Big
   Data

St. Francis Institute of Technology Mumbai, India
Bachelor of Engineering (BE) Sept 2016 - Aug 2020
Computer Science Engineering
CGPA: 1.95
Relevant Coursework: Artificial Intelligence, Soft Computing, Digital Logic and Digital Analysis,
   Computer Graphics

WORK EXPERIENCE

Testia GmbH Bremen, Germany
Data Engineering Intern and Master Thesis Student Sept 2022 – Aug 2023
- Built and tested ETL Pipelines for 3D Volumetric Data, where the pipeline started from processing the 3D Data, and at the end tested the data on a trained model by running an inference.
- Designed a U-Net architecture where the model training achieved a 86% accuracy in detecting anomalies within a 3D CT Scan of a manufactured part.
- In my master's thesis, I adeptly navigated the complexities of more intricate and computationally demanding data, demonstrating my ability to effectively handle intricate design datasets.
- Additionally, I continually refined the machine learning model throughout the thesis project, ensuring optimal performance and adaptability to evolving project requirements.
- Successfully developed a U-Net model, reducing experts' manual workload, and emphasizing practical problem-solving commitment.

UNIVERSITY PROJECTS

Porosity Detection in CT Images using CNNs (U-Net)   Feb 2023
- I accomplished this as part of my research for my master's thesis
- Developed a UNet model tailored for detecting pores and defects within CT image scans of complex aerospace parts.
- Employed advanced techniques, including MONAI for segmentation and the UNet Convolutional Neural Network architecture.
- Data annotation was facilitated using 3D Slicer and MONAI Label.
- The project's primary objective was to train a model capable of automatically detecting porous regions in CT images, resulting in significant time and effort savings compared to manual inspection

Eye Disorder Classification using ResNets and OCT Images   Jan 2020
- I undertook this project as part of my research for my bachelor's thesis.
- Developed an application using ResNets to predict and categorize OCT (Optical Coherence Tomography) scans of the retina into four different disorders.
- Achieved a notable accuracy rate of 83% with the test dataset, underscoring the effectiveness of the developed tool in diagnosing retina disorders.
- The primary aim of the application was to enable early identification of eye disorders by leveraging machine learning techniques, thus facilitating timely intervention.

SKILLS

Programming: Python, MySQL, PostgreSQL, R, Java, PHP, C, Perl, HTML, JavaScript
Technical Skills: Deep Learning, Machine Learning, Data Visualisation, Image Processing, Data Analysis, Natural Language Processing
Data Science Tools: PyTorch, CNN, U-Nets, Scikit-Learn, Data Pipelines, Tableau, ETL Pipelines, MySQL, Big Data, Pandas, Numpy, Apache Spark, Jupyter, TensorFlow, NLTK, Kaldi
Data Visualisation: 3D Slicer, MITK, Plotly, Dash, Matplotlib, Seaborn
Other Knowledge: Confluence, Docker, Git, Microsoft Azure, Kanban, Flask

ADDITIONAL

Languages: English (Fluent), German (Intermediate), Konkani (Native), Hindi (Fluent), Marathi (Fluent)
Certifications & Training: Microsoft Certified: Azure AI Fundamentals, Introduction to Programming Using Python by Microsoft, Introduction to Data Science using Python (Udemy), Machine Learning and AI using Python (On Campus Training)