CHETHAN MYSURU RADHAKRISHNA

Master's Student, Data and Knowledge Engineering,
Otto-Von-Guericke Univerity, Magedeburg

chethanmr.2694@gmail.com | +49 17636817295
Wallonerberg 4, 39104, Magdeburg, Germany
chethan-radhakrishna-94310010b/ | chethanMysore | portfolio

SKILLS

- Python
- R
- SQL
- SPLUNK
- mongoDB
- Node.js
- React.js
- C#
- C++
- Java

LIBRARIES

Scikit-Learn | Keras | Tensorflow | NLTK | spaCy | gensim | PyTorch

IDES

Visual Studio | PyCharm | Eclipse | Jupyter | Google Colab

CICD

Bitbucket | Git Lab | TFS | Octopus | Jenkins | Docker

LANGUAGES

English: Professional C1

Germany: Basic / A2

ABOUT ME

I am a data science enthusiast with an inclination towards visual exploration of trends in data. I am also a skilled web developer with a collective experience of 4 years. However, I believe in the idea that "What we know is a drop and what we don't know is an ocean".

EXPERIENCE

Big Data Analyst in Project Management Metrics | Bosch Engineering GmbH

Intern Apr 2021 – Sep 2021 | Work Student Jan 2022 – Dec 2022 — Abstatt, Germany

- Worked on the analysis of data originating from software development life cycle using SPLUNK
- Clean-up and modelling of data origination from various sources including sprint planning and requirement management tools like ALM and DOORS
- Developed dashboards for the visualization and dynamic analysis of the full V-Model pertaining to requirement management
- Rolled out the generic real-time dashboards to various projects using CICD tools including bitbucket and Jenkins

Technologies: SPLUNK, Python, SQL

Software Developer | Metratec Gmbh

Work Student Jun 2019 – Feb 2021 — Magdeburg, Germany

- Worked as a full stack web developer and handled API integration with react-redux dashboards
- Worked on real time data using web sockets
- Worked on event sourcing and reSolve(a CQRS framework built using node.js)
- Managed Gitlab pipeline and docker configurations with yaml

Technologies: Reactjs, nodejs, reSolve, web sockets, node-red

Software Engineer | Happiest Minds Technologies Pvt Ltd

Oct 2016 – Jan 2019 — Bengaluru, India

- Contributed as a full stack web developer and worked on ASP.NET MVC applications and Web API services built on .NET framework 4.6.2 and .NET core
- Worked on react.js and redux to implement stateful front-end UI
- Worked exclusively on Health Care domain with the knowledge of online data exchange standards such as HL7
- Worked on AWS EC2, S3 buckets, Simple Mail Service and Lambda(for deploying micro services)

- As a billable resource, interacted with clients to understand requirements and effectively communicated the innovative ideas to solve their problems

Technologies: ASP.NET MVC/WebAPI, C#, Reactjs, nodejs, AWS

EDUCATION

M.Sc. in Data and Knowledge Engineering | Otto-von-Guericke University

Apr 2019 – Jun 2023 (Ongoing) — Magdeburg, Germany

- GPA: 2,5

B.E. in Computer Science and Engineering | Vidyavardhaka College of Engineering

Jun 2012 – Jul 2016 — Mysuru, India

- GPA: 2.32

PROJECTS

Master's Thesis: Investigating the Challenges of 3D Image Segmentation without Manually Segmented Ground Truth |

Oct 2022 – Jun 2023 (Ongoing)

- Research aims at exploring possible benefits of Unsupervised Deep Learning (DL) techniques to reduce the dependency on prior annotations in 3D Image Segmentation
- Research tasks include comparison of quality of segmentations generated using UNet and WNet based architectures with and without limited/weak annotations
- Study extends *Attention WNet* architecture with the similarity and consistency losses proposed in the *Differentiable Feature Clustering (DFC)*
- Approach is validated by performing Pathology Detection(Tumor Segmentation) using 3D MRI volumes obtained using 3Tesla and 7Tesla scanners
- Study compares the resulting segmentations obtained using the proposed approach against non-DL baselines to analyse the efficiency of Deep CNN's in the field of Computer Vision

Technologies Used: Python, PyTorch, nibabel, scikit-image, cuda, WNet, Deep CNN

Enhancing Vessel Continuity in Deep Learning based Segmentation using Maximum Intensity Projection as Loss |

Apr 2022 – May 2023 (Ongoing)

- Study focuses on challenges pertaining to segmentation of biomedical images by extending *"DS6: Deformation-aware Semi-supervised learning"* published by Dr.Chatterjee et.al., with Maximum Intensity Projection (MIP) comparisons
- Proposed Vessel Segmentation approach was validated using limited annotated samples of high resolution 7Tesla 3D-MRA volumes
- Qualitative analysis of ROI's revealed clear improvement in the continuity of vessel structures perceived by the Deep Learning network after incorporating MIP comparisons as one of the loss terms during training
- Study is accepted for presentation at the annual conference of *International Society for Magnetic Resonance in Medicine(ISMRM)* to be held at Toronto from 03-08 June 2023

Technologies Used: Python, PyTorch, nibabel, scikit-image, cuda

Interpretable Machine Learning to Understand Participant Evolution in Longitudinal Cohort Study Data |

Oct 2019 - Mar 2020

- Project aims at identifying evolutionary trends in longitudinal cohort data of a German population in Pomerania
- Study focuses on explainable AI to explore the results of a machine learning model to derive critical factors influencing the diagnosis of Hepatic Steatosis
- Worked on pre-processing, R-API development and visualization of model results using react-redux dashboard

Technologies Used: R, react.js, redux, saga, canvas.js(for interactive graph visualizations)

Information Retrieval System |

Oct 2019 - Jan 2020

- A console java application which indexes files and directories and allows users to execute boolean queries on them
- Used Apache Lucene to tokenize, index and query text in a directory(nested) or files
- Application aims at achieving disambiguation of search terms and ranking of results based on relevance score

Technologies Used: Apache Lucene, java, maven

Gesture Recognition For Interactive Systems Using Kinect V2 |

Nov 2015 - Apr 2016

- Developed a WPF application to recognize user gestures using Microsoft Kinect V2 sensor
- Application binds different mouse and keyboard inputs to gestures performed by users and thereby allowing them to interact with the system
- Authentication of users is performed with face recognition algorithm developed using PCA(Principal Component Analysis) to compare grey scale images of faces

Technologies Used: .NET framework 4.5, WPF, Kinect V2 SDK, C#