VUPPALA ADITHYA SAIRAM

ASPIRING FULL STACK DATA SCIENTIST

ABOUT ME

An aspiring data scientist pursuing masters in Symbiosis University. An innovative mind with strong research skills and burning desire for applicative AI. Primary areas of interest include medical imaging and predictive maintenance.

TECHNICAL SKILLS

- Python
- Tensorflow
- Scikit-learn
- Deployment (Streamlit, Flask, PyQt)
- Technical Writing
- SQL

AREAS OF INTEREST

- Machine Learning
- Deep Learning
- Computer vision
- Multimodal AI
- Multi task learning
- Explainable AI
- Automated AI workflows
- Data Analytics

CONTACT

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No 5, Elakiya Apartments, Andavar Nagar, 6th street, Kodambakkam, Chennai 600024.

INTERNSHIPS

June 2023 - December 2023
DEEP LEARNING RESEARCH INTERN
Symbiosis Center of Medical Image Analysis (SCMIA)

July 2022 - Dec 2022
DEEP LEARNING INTERN
Capgemini Technology Services India

2021-2023
MEDICAL IMAGING RESEARCH LEAD
Center of Excellence in Medical Imaging

EDUCATION

2023 - Current
Masters of Technology (AI & ML) 8.66
Symbiosis Institute of Technology, Pune

2019-2023
Bachelor of Engineering (Biomedical) 9.27
Rajalakshmi Engineering College, Chennai

2017-2019
Higher secondary Education (Biomaths) 90%
DAV Matriculation Hr Sec School, Chennai

PROJECTS

1. **A Deep learning framework for Automated segmentation and quantification of kidney from CT images** (Tech stack- Tensorflow, Python, PyQt, OpenCV)
2. **Multi-task model for grade and IDH mutation status prediction from gliomas using MRI** (Tech stack- Tensorflow, Python, Nibabel, OpenCV, PyQt)
3. **Unsupervised clustering of grade and IDH mutation status in glioma using MRI** (Tech stack- Tensorflow, Scikit-learn, Python, Nibabel, OpenCV)
4. **Multi-task model for prediction of post operative characteristics for pediatric kidney stones with Explainable AI.** (In Association with Southampton and New Castle Universities)
5. **Semi Supervised Multi task model for fault classification and RUL prediction in water pumps.** (Tech Stack- Python, Scikit-learn, Pandas, Tensorflow)
6. **Explainable AI based multi-task model for failure monitoring and GPS assessment in metro trains** (Tech stack- Tensorflow, Python, Scikit-learn, LIME)
7. **Automated 3D segmentation of lung lobes using deep neural networks** (Tech stack- Tensorflow, Python, PyQt, Nibabel)
8. **Clustering aided classification framework for transfomer burn prediction** (Tech stack- Scikit learn, Python, AutoLoggingML, AutoClusterPy)

CERTIFICATIONS

- **Deep learning certification from Guvi geeks (IITM collaboration)**
- **Cloud Computing Foundations from Google Cloud Skill Boost**
- **SQL 5 star certification from hackerrank**
- **Python 5 star certification from hackerrank**

PYTHON MODULES DEVELOPED

- AutoLogging-ML
- AudioPy-ML
- AutoCleanPy
- AutoClusterML

PUBLICATIONS

- Sadagopan R, Ravi S, Adithya SV,Vivekanandhan S. **'PolyEffNetV1: A CNN based colorectal polyp detection in colonoscopy images.'** Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine. 2023 Jan 23. (Impact factor- 1.8, Web of Science) Link
- Rajkumar S, Sairam VA, Krithika GK, Harini CS, Dhanusha P, Chandrasekar GE, Sapthagirivasan V. **GastroEffNetV1- CNN based Automated detection of Gastrointestinal abnormalities from capsule endoscopy images."** Link
- Navale, S., Anjanikar, A., Mohammed, A., Sairam, V.A., Gite, S., Mahajan, S. and Nandhini, K., 2024. **Automated Classification of Gastrointestinal Abnormalities using Convolutional Neural Networks.** International Journal of Intelligent Systems and Applications in Engineering, 12(12s), pp.348-360. Link
- **Automated KL Grading of Knee X-ray Images using Convolutional Neural Network.** Accepted on 'International Journal of Biomedical Engineering and Technology'.
- **Deep Learning Framework for Automated Drug Resistance Prediction of Tuberculosis Using Computed Tomography Images.** Proceedings of International Conference on Next Generation Electronics.
- **VOLUME 1: KNEE OSTEOARTHRITIS: Descriptive analysis on the degenerative knee joint disease.** Sairam V A, Sudha S, Saravanarajan S. Amazon Kindle. B095LWXD17. Link

AWARDS

- **Outstanding contribution in Center of Excellence in Medical Imaging**
- **Recipient of "Prof V.N. SRINIVASAN" award for innovation; Winner of IPC2022**
- **Runner up of HackOverflow 2.0, conducted by Rajalakshmi Engineering College.**
- **Finalist of HACKTOPIA 2023 (top 10 in healthcare and top 35 overall out of 600 teams)**
- **AIR 1 in the NPTEL course 'Demystifying the Brain'**
- **Winner of Socio Hackathon 2024, event of Action Plan '23, hosted by IITB**
- **Finalist of Socio Innovation Project Competition, Action Plan 2023, IIT Bombay.**