Akshit Achara

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EDUCATION

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE
MSc Mathematics
August 2016 - July 2020 | Pilani, India

EXPERIENCE

GE RESEARCH | Research Engineer
Oct 2022 – Present | Bangalore, India

- Developement of a combined annotation independent token classification and entity linking approach on patient reports.
- Finetuning and Reinforcement learning on a generative text model for providing solutions to field engineers for medical systems.

GE | Edison Engineer
GE Research
Apr 2021 – Sept 2022 | Bangalore, India

- End-to-End productization of dockerized applications for an EMS.
- Development of MRI viewer with a brain MRI segmentation model that achieved a test F-score of 0.84 using real-world training data.
- Timeline-based summarization of patient reports for Oncology using transformer based pipelines.
- Federated learning for token classification on distributed real-world patient data to match the performance of the model trained on the overall data.

GE Healthcare
Oct 2020 – Mar 2021 | Bangalore, India

- Implemented Voice to Action converter for an Imaging Application.

PROJECTS

PAPERS | Computer Vision, Image Processing

- CoreDeep: Improving Crack Detection Algorithms Using Width Stochasticity (Modified version accepted at CVIP)
- TrueDeep: A systematic approach of crack detection with less data (Submitted to Expert Systems with Applications)
- Revealing the Underlying Patterns: Investigating Dataset Similarity, Performance, and Generalization (Submitted to Neurocomputing)

MASTER THESIS | Machine Learning, Bioinformatics
Aug 2019

- Development of mirtargetbenchmark: A machine learning tool to benchmark miRNA target prediction tools.

INTERNSHIPS | Data Structures, Operating Systems, OOP, Deep Learning

- Development of rminizinc: An interface to MiniZinc in R as a part of GSoC 2020.
- **GE Healthcare, 2019**: Development of a multi-threading approach to improve performance of MRI Scanners.
- **GE Healthcare, 2018**: Development of a cloud based application to handle multi-modal data and send alerts.

SKILLS

PROGRAMMING
Over 5000 lines:
Python • Java • C/C++ • R • LaTeX
VCS & BUILD TOOLS
Git • TravisCI

COURSEWORK

Introduction to Probability and Statistics
Statistical Inferences and Applications
Applied Stochastic Processes
Fuzzy Logic and Applications
Symbolic Logic
Linear Algebra
Discrete Mathematics
Graphs and Networks
Differential Geometry
Machine Learning
Algorithms and Data Structures
Operating Systems
OOP Programming

ACTIVITIES

Joint Secretary, Mathematics Association, BITS Pilani
School and College Cricket Teams
Winner, One Dream Corporate Cricket Cup, Bangalore