

Vignesh Edithal

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OBJECTIVE

Aspiring Machine Learning Engineer interested in statistics to create explainable AI solutions. Interested in contributing to computer vision problems by leveraging research experience in deep learning.

EDUCATION

University of Toronto **September 2022 - December 2023 (expected)**
MScAC (Data Science concentration): AI, Computer Vision, Data Science, Statistics

IIT Madras, India **December 2021 - August 2022**
Diploma in Data Science: Statistics, Machine Learning, Business Analytics, GPA: 9.3/10

IIT Patna, India **September 2014 - May 2018**
B.Tech in Computer Science: GPA: 8.9/10

PROJECT WORK

Brain Tumor MRI synthesis using aggregation of GANs **University of Toronto**

- Trained pytorch implementation of DCGAN and WGAN including Hyperparameter tuning
- Pre-processing such as resize and up/down-sampling. Post-processing using style transfer
- Obtained PSNR and SSIM scores comparable to that of a scientific research paper
- Presented work to industry and faculty during poster presentation, submitted conference format report

Novelty detection in texts **IIT Patna, India**

- Capture semantic redundancy in documents using CNN and self-attentive network
- Presentation for feedback collection with the AI-NLP-ML group of IIT Patna
- Published in COLING 2018: <https://aclanthology.org/C18-1237.pdf>

Machine learning to predict college drop out rate **IIT Madras, India**

- Exploratory data analysis followed by data cleaning and transformation using scaling pipelines
- Evaluation and Hyper-parameter tuning of 10 ML algorithms from scikit-learn library
- Identify best performing combination of algorithm and parameter set for the classification problem

WORK EXPERIENCE

D. E. Shaw India **July 2018 - July 2022**
Senior Member Technical **Hyderabad**

- Developed Python based backend to manage UNIX groups for the entire firm
- Created normalized MS SQL databases and maintained them throughout lifetime of the application
- Scripted complex inter team processes using Python/Bash to reduce SysAdmin tickets by 25%
- SRE support for in-house Linux cluster and Windows farm to prevent critical issues

TECHNICAL STRENGTHS

Scripting	Bash, PowerShell, Python
Web development	FastAPI, React.js, SQL Alchemy
Deep learning	Transformers, PyTorch, Keras
Data Science	Pandas, Numpy, Scipy, Matplotlib, Scikit-learn