

# Vignesh Edithal

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## OBJECTIVE

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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

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**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

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**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

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**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

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