# Vignesh Edithal

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#### **OBJECTIVE**

Looking for challenging roles in Computer Vision and Data Science domain. Interested in contributing to challenging problems by leveraging programming and research skills.

#### WORK EXPERIENCE

Advanced Micro Devices (AMD)

Machine Learning Research Intern

May 2023 - December 2023 (expected)

Markham, Ontario

- · Fine-tuned CLIP model to detect kill and death events in CSGO with 94% accuracy
- · Surveyed more than 10 state-of-the-art Computer Vision models for Event Detection in Video Games
- · Performance analysis of Vision Transformer, Masked Auto Encoders and ResNet using PyTorch
- · Designed efficient data collection methodology to develop 50 GB in-house video dataset in a month

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

- · Enabled firm-wide hierarchical permission management feature using Python and SQL backend
- · Automated third party file transfers for HR using Python/Bash scripting leading to 10% ticket reduction
- · Provided engineering support for production Linux cluster to SysAdmin team to reduce SRE escalations

#### PROJECT WORK

#### Brain Tumor MRI synthesis using aggregation of GANs

University of Toronto

- · Implemented and trained DCGAN and WGAN models from scratch with tuned hyper-parameters
- · Pre-processed data using up/down-sampling and used style transfer for post processing
- · Obtained PSNR and SSIM scores comparable to relevant literature
- · Showcase research in poster presentation with industry/faculty and submitted conference format report

### Novelty detection in texts

IIT Patna

- · Published research paper in COLING 2018 NLP conference: https://aclanthology.org/C18-1237.pdf
- · Adapted CNN with self-attention deep network to detect novel semantics between texts
- · Collected research feedback from AI-NLP-ML lab of IIT Patna through weekly presentations

#### **EDUCATION**

University of Toronto

September 2022 - December 2023 (expected)

MSc in Applied Computing: Deep Learning, Computer Vision, Data Science, GPA: 4.0/4

IIT Madras December 2021 - August 2022

Diploma in Data Science: Statistics, Machine Learning, Business Analytics, GPA: 9.3/10

IIT Patna September 2014 - May 2018

BTech in Computer Science: GPA: 8.9/10

## TECHNICAL STRENGTHS

Scripting Bash, PowerShell, Python

**Deep learning** Transformers, PyTorch, Keras, Hugging Face

Data Science Pandas, Numpy, Matplotlib, scikit-learn, SQL Alchemy