

Vignesh Edithal

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OBJECTIVE

Looking for Machine Learning Engineer roles in Computer Vision and Data Science domain.
Interested in contributing to AI and ML projects by leveraging programming and research skills.

WORK EXPERIENCE

Advanced Micro Devices (AMD) **May 2023 - December 2023 (expected)**
Machine Learning Research Intern **Markham, Ontario**

- Finetuned CLIP and Auto Encoder models to highlight events in FPS gameplay with $> 90\%$ accuracy
- Designed efficient data collection methodology to develop > 50 GB in-house video dataset in a month
- Optimized state-of-the-art transformer models for deployment using ONNX framework
- Wrote masters thesis and presented research poster in both academic and industry settings

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

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

PUBLICATION

Novelty Goes Deep. A Deep Neural Solution To Document Level Novelty Detection. (Ghosal, Edithal et. al., COLING 2018). (aclanthology.org/C18-1237)

EDUCATION

University of Toronto **September 2022 - December 2023 (expected)**
MSc in Applied Computing: Deep Learning, Computer Vision, Data Science **GPA: 4.0/4.0**

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: Algorithms, Databases, Operating Systems **GPA: 8.9/10**

TECHNICAL STRENGTHS

Scripting	Bash, PowerShell, Python
Deep learning	Transformers, PyTorch, Keras, Hugging Face
Computer Vision	OpenCV, TorchVision, Decord, Scikit-image
Data Science	Pandas, Numpy, Matplotlib, Scikit-learn, SQL Alchemy