# 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** |

· 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** | **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

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

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

| **IIT Patna** | **September 2014 - May 2018** |
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**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 |