Udbhav **Prasad**

Aspiring Data Scientist

Downtown, Toronto ON, Canada

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Skills

Languages	Python, SQL, Java, Scala, HTML, CSS
Big Data Frameworks	Spark, Kafka, Hadoop, NiFi
Development Tools	Azure, Databricks, Docker, Linux, Git, JMeter — PyCharm, VSCode, Data Studio, Vim, Notebooks
Python Packages	PyTorch, PySpark, scikit-learn, NumPy, Pandas, Flask, Matplotlib, Seaborn, spaCy

Experience

Ministry of Health and Long-Term Care

Toronto, Canada

Application Programmer

Sept. 2020 - Aug. 2021

- Independently Created 2 Proof-Of-Concept applications for Distributed Log-Stream Processing with Scalability in focus; implemented on ministry servers and Azure Cloud Platform:
    1. Using Azure Event Hubs, Functions and Azure SQL
    2. Using Spark Streaming from Kafka & NiFi data flow management alongside HDFS

  Additional work included: Writing Producers for tailing log files, Email Alerts, parsing, etc.
- Configured 6-node cluster where I Installed and Configured many Software and Big Data Technologies(Spark, Kafka, Hadoop, PostgreSQL, etc.) on Multi-Node Cluster(6 Nodes) intended for use by other developers and second POC application
- Debugged and finished incomplete Python Application to automate excel reports' formatting for Ontario Disability Requirements
- Performance Tested multiple applications with JMeter to determine maximum concurrent users resulting in clearance for Production use
- Wrote Scripts in JavaScript and Python for GUI to change and backup web-pages in production server

Education

Ryerson University

Toronto, Canada

Bachelor of Science in Computer Science, GPA: 3.74 - Dean's List '19 - '20

September 2018 - May 2023

- Currently 4th Year Computer Science Student
- Minor in Mathematics
- **Relevant CS Coursework**: Machine Learning, Data Structures, Algorithms, Databases, Functional and OOP
- **Relevant Math Coursework**: Calculus and Computational Methods, Linear Algebra, Discrete Math, Probability and Statistics

Projects

Transformer Implementations Package: GitHub

Open Source Contribution

Python | PyTorch | Deep Learning | Natural Language Processing | Computer Vision

Nov 2020 - Ongoing

- Python Library for Transformer Neural Networks that can be used for many Machine Learning Tasks
- Published Package on **PyPi**
- Implemented multiple Transformer neural networks from scratch with extensive documentation
- Trained and optimized the models implemented
- Models used in tasks such as Image Classification and Sequence-to-Sequence translation
- Models: Vision Transformer(ViT), Data efficient image Transformers(DeiT), GPT, BERT, Vanilla

Image Generation with GANs & Auto-encoders: GAN library & VAE - Faces

Open Source Contribution

Python | PyTorch | Generative Modeling | Deep Learning | Computer Vision

Jan 2021 - Ongoing

- Python Library for Generative Adversarial Neural Networks that can be used for Image Generation Tasks
- Published Package on **PyPi**
- Implemented multiple GANs and Auto-encoders from scratch
- All models trained and optimized producing realistic images
- Models Implemented: StyleGAN, DCGAN, WGAN, SNGAN, Variational Autoencoder, etc.

Neural Style Transfer Web App: GitHub

Open Source Contribution

Flask | Docker | Python | PyTorch | Computer Vision

May 2021

- Flask Web App containerized with Docker to Combine the Style from an Image to another
- Through Web Interface you can customize training process and run transfer in backend