

Rohit Mohanty

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[in https://www.linkedin.com/in/rohit-mohanty/](https://www.linkedin.com/in/rohit-mohanty/) | <https://github.com/r-mohanty> | <https://r-mohanty.github.io>

SUMMARY

Experienced in Data Science with focus and proficiency in the fields of Deep Learning and Natural Language Processing. Strong knowledge of High Dimensional Statistics and experience in applying it using Python, TensorFlow and PyTorch.

EDUCATION

Brown University - Master of Science (ScM) in Computer Science

RI, USA | Aug 2021 - May 2023

IIT Bhubaneswar - BTech in Electrical and Electronics Engineering

Odisha, India | Aug 2013 - May 2017

PROJECTS

Log Anomaly Detection Framework - NLP, Python, TensorFlow, VAE, LSTM, GAN, CNN [\[GITHUB\]](#)

- Built a framework to detect anomalies in log files generated by large scale distributed systems using deep learning and NLP models.
- Achieved an accuracy of 0.971 and an F1 score of 0.979 on binary classification of HDFS dataset by using VAE based model.

Photo-Realistic Super Resolution - Deep Learning, GAN, SRMAP, Python, TensorFlow, NumPy [\[GITHUB\]](#)

- Used MAP framework and StyleGAN2 based architecture to create a generative model to produce super resolution images.
- Surpassed the performance of traditional super-resolution methods by achieving PSNR values of 58.4 and LPIPS value of 0.153.

Ironic Sentiment Detector - NLP, Sentiment Analysis, Python, PyTorch, NumPy, NNP+ model [\[GITHUB\]](#)

- Built a sparse, contextually informed NLP model to detect ironic statements in Reddit comments using the sentiment of the thread.
- Achieved an average precision of 0.5 by using noun phrases in NNP+ model which had recursive information from Parent threads.

Weensy Operating Systems for CS1310 - C++, Multithreading, Memory Management, Caching, Virtualization

- Developed an operating system equipped with processes, threads, schedulers and drivers for CS1310 at Brown University.
- Expanded the operating system by adding Virtual Memory, page tables and adaptive I/O caching.

PROFESSIONAL EXPERIENCE

Nova Biomedical, Software Development Engineer

MA, USA | July 2023 – Present

Nova Primary - C#, .NET, Windows Server, XML, SOFA, Graphical User Interface

- Developing the multi-threaded backend architecture and Graphical User Interface for the company's latest blood glucose analyzer.
- Added vital functionalities to the Analyzer such as Time Zone Selection, Export Configurations and Multi Language Support

Brown University, Grad Teaching Assistant

RI, USA | Jan 2023 – May 2023

Theoretical Machine Learning - High Dimensional Statistics, Matrix Calculus, Linear Algebra, Python, TensorFlow, NumPy, Pandas

- Designed the first version of the course structure and assignments in the topics of Matrix Completion and Recommendation Systems
- Built the course pathway with extensive research in the topics of Bloom Filter, PageRank and Locality Sensitive Hashing algorithms.

Cumulus Digital Systems, Software Development Intern

MA, USA | May 2022 – Aug 2022

Column Name Matching and Generation - Natural Language Processing, Deep Learning, Transformers, NumPy, Pandas, TensorFlow

- Implemented a Seq2Seq model using a multi-headed attention-based transformer to generate new company-based column names.
- Achieved a perplexity score of 85 by using semantic & contextual information from data to derive stronger latent representations.

Dell Technologies, Software Development Engineer

Hyderabad, India | July 2017 – Sept 2019

Achievements: Dell Champions Award

Dell Federal Business Enablement Team – LSTM, Transformers, Python, NumPy, Pandas, TensorFlow, SOA, Pivotal Cloud Foundry

- Used bi-directional LSTM based model to predict delays in order shipping with an accuracy of 0.97 by using data from logistics.
- Built a model using transformers to extract the date of shipping and date of order from PDF documents with an accuracy of 0.85.
- Improved performance of middleware by 84% by optimizing SOA services in Python and migrating them to Pivotal Cloud Foundry.

TECHNICAL SKILLS

Core Skills: Machine Learning, Deep Learning, Algorithms, Data Structures, Operating Systems, Computer Networks

Languages & Libraries: Python, TensorFlow, PyTorch, NumPy, Pandas, C++, C, C#, TypeScript, SQL, Node.js, React, Flask

Cloud & Databases: AWS Lambda, Pivotal Cloud Foundry, Serverless, MongoDB, DynamoDB, AWS Timestream, MySQL