

# Shubham Pandey – Data Scientist

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## PROFESSIONAL EXPERIENCE

### Data Science Intern – Delaware North

Buffalo, NY | May 2023 – December 2023

- Reduced pipeline downtime by 30%, leading a team to validate data pipelines from 150+ pos partners and 300+ locations
- Improved data quality by identifying and mitigating anomalies in 50M transactions with an anomaly detection framework

### Data Scientist – Fidelity Investments

Bengaluru, KA | June 2022 – July 2022

- Enhanced user attrition and engagement by 15% through journey-based recommendations using collaborative filtering

### Senior Data Scientist – Tredence Inc.

Bengaluru, KA | July 2019 – June 2022

- Spearheaded NLP data mining to improve search coverage by 28% and query time by 75% using generative NLP models
- Saved retail client ~12% annually by automating detection, localization, and refunds for damaged items using Images
- Developed post-hoc, model agnostic explainability (Explainable AI) product MLWorks to reduce downtime by ~90%
- Led A/B testing initiatives, crafted attribution Models, optimized CLTV, contributing to ~18% boost in marketing efficiency
- Boosted customer success rate by 25% by employing causal inference-based attribution model for online and retail ads
- Designed an RNN-based framework for call summarization, text/audio-based sentiment, improving turnaround by 40%

### Data Science Engineer – Wipro Technologies

Bengaluru, KA | August 2017 – July 2019

- Mentored teammates & reduced turnaround time by 15 hours weekly by validating documents & automating payments
- Collaborated and optimized Enterprise and Retail KYC turnaround time by 90% by verifying Identification documents
- Deployed an anomaly detection solution for real-time first-party fraud detection, reducing bank losses by 18%
- Integrated active learning, GAN, and VAE for synthetic data generation in healthcare industry, cutting ML lifecycle by 33%
- Chosen as a mentor to Wipro Holmes VP Rohit Adlakha in a prestigious reverse mentoring initiative, fostering innovation

## PROJECTS

- Developed a Langchain-based Large Language Model (LLM) chatbot, harnessing vector databases and embedding models. It integrates document interaction and natural language query capabilities for information retrieval and interaction
- Performed SOTA Image Quality Assessment metrics stress testing on MIPGAN and StyleGAN-generated facial images
- Won hackathon for marketing analytics project to optimize ROAS of sports TV ads using computer vision techniques
- Explored the BERT model's ability to discern paraphrases across layers. Analyzed embeddings' cosine similarity in paraphrase and non-paraphrase pairs, offering insights for transformer-based NLP model optimization

## PUBLICATIONS & CONFERENCES

- Delivery Issues Identification from customer feedback data [MLDS 2022](#)
- Unsupervised Paradigm for Information Extraction from Transcripts using BERT [ECML - PKDD 2021](#)
- Hosted a workshop on 'Responsible AI' and was a speaker at [MLDS 2022](#)
- Speaker at CVDC (Computer Vision DevCon) 2020 & European Conference on Machine Learning [PKDD 2021](#)

## SKILLS

**Programming** — Python, R, MATLAB, C++, Java, SQL, Bash, Node.js, JavaScript, Go

**Artificial Intelligence** — Statistics, ML, DL, NLP, CV, Generative AI, GANs, RNN, Transformers, Large Language Models

**Tech Stack** — TensorFlow, PyTorch, Keras, Flask, Django, NodeJS, Airflow, Databricks, Spark, MLOps, PowerBI, Tableau, Kafka, Hive, Docker, MongoDB, MapReduce, Linux, Elasticsearch, Git, Hadoop, Pig, Cuda, PostgreSQL

**Cloud** — Google Cloud (Cloud Storage, Compute Engine), AWS (ECS, S3, lambdas, SQS), Kubernetes, CI/CD

**Soft Skills** — Leadership, Agile, Collaborator, Problem Solving, Communication, Critical Thinking

## EDUCATION

University at Buffalo, The State University of New York

Buffalo, NY | December 2023

Master of Science in Artificial Intelligence, GPA: 3.8

Founder and President - UB AI Club

Birla Institute of Technology Mesra

Ranchi, JH | June 2017

Bachelor of Engineering in Computer Science