

# Shubham Pandey

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## PROFESSIONAL EXPERIENCE

### Data Science Intern – Delaware North

Buffalo, NY | May 2023 – December 2023

- Led intern team, Identified, and mitigated defects and anomalies in 50M transactions, reducing pipeline downtime by 30%

### Data Scientist – Fidelity Investments

Bengaluru, KA | June 2022 – July 2022

- Improved journey-based recommendations using collaborative filtering to enhance user attrition & engagement by ~15%

### Senior Data Scientist – Tredence Inc.

Bengaluru, KA | July 2019 – June 2022

- Led NLP data mining task to boost search coverage by 28%, and query time by 75% by employing generative NLP models
- Built a framework to automate detection, localization, refund of damaged items for retail client to save ~12% annually
- Developed post-hoc, model agnostic explainability (Explainable AI) product MLWorks reducing to downtime by ~90%
- Reduced customer interactions by 40% leveraging audio/text-based framework to gauge sentiment for long audio calls
- Boosted customer success rate by 25% by employing causal inference based attribution model for online and retail ads
- Designed RNN audio spectral features-based diarization framework for call summarization, improving turnaround by 40%

### Machine Learning 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 to minimize the bank's losses by 18% for real-time first-party fraud detection
- Integrated active learning, GAN, and VAE for synthetic data generation in Healthcare industry, cutting ML lifecycle by 33%

## PROJECTS

- Created a Langchain-based LLM chatbot for document interaction, and natural language queries to improve usability.
- Conducted SOTA testing on GAN facial image. Won hackathon for quantifying marketing impact on sports TV ads by CV.

## 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](#)

## EDUCATION

### University at Buffalo, The State University of New York

Buffalo, NY | December 2023

Master of Science in Artificial Intelligence

Coursework: ML, Reinforcement Learning, Natural Language Processing, Advance Comp. Linguistics, Computer Vision

### Birla Institute of Technology Mesra

Ranchi, JH | June 2017

Bachelor of Engineering in Computer Science

Coursework: Operating Systems, Compiler Design, Analysis of Algorithm, Object-Oriented Programming

## SKILLS

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

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

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

**Cloud** — Google Cloud (Cloud Storage, Compute Engine), AWS (EC2, S3, lambdas, SQS), Kubernetes, CI/CD

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

## EXTRA-CURRICULAR

- Founded AI Club at UB and hosted various industrial leader talks and events for UB students
- Karnataka State Human Rights Secretary for Megha Welfare Association (NGO)
- Mentor to Rohit Adlakha, VP and Global Head of Wipro Holmes under reverse mentoring program
- Organized blood donation camps on university campuses for three consecutive years in association with Apollo Hospital