# Varsha Hindupur

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## Education

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| **Northeastern University** | **Sept 2022 - July 2024** |
| *Master of Science in Information Systems, AI, ML & Data Science* | *Boston, MA* |

Courses: Big Data Intelligent Analytics, Adv. Data Science, Gen. AI, High Parallel Computing AI ML, App Dev. & Engineering

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| **University of Mumbai** | **May 2012 - May 2016** |
| *Bachelor of Engineer in Information Technology* | *Mumbai, India* |

## Technical Expertise

**Programming:** Python, Scala, SAS, Spark, R, React, Terraform, Node JS, Java SpringBoot, C/C++, FlaskAPI, FastAPI, Selenium
**Databases:** SQL, DBT, Hadoop, Hive, Teradata, MySQL, T-SQL, MS SQL Server, Collibra, RDS, Data Factory
**AI, ML & Data Science:** Regression, Classification, Pattern Recognition, Neural Networks, Deep Learning, NLP, Scikit Learn, Hugging Face, Object Detection, Large Language Models (LLM), AutoML, Tensorflow, Keras, PyTorch, CUDA, A/B Testing
**Cloud:** AWS, Azure, Kafka Confluence, GitHub Actions, Docker, Snowflake, Databricks, Airflow, Astronomer, Kubernetes
**Certification:** MS Azure Fundamentals AZ-900 (**Feb 2020**), IBM Coursera Data Science Capstone SpaceX Project (**Jan 2024)**
**Clubs**: Technical Expert at NEU Blockchain Student Organization **(Dec 2023 – Present)**
**Publication:** Data Transfer Through Human Body in IEEE & Presented in IEEE's IOTA Conference (**Jan 2016**)

## Work Experience

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| **Data Analysis Co-Op** | **May 2023 – Dec 2023** |
| *Novelis - An Aditya Birla Company* \| Tech Stack: Power BI, Salesforce, LLM, Arize, Azure MLOps | *Atlanta, GA* |

- □ Accomplished data analysis strategies by utilizing Salesforce & Power BI reporting elevating operational efficiency by **90%**
- □ Built & analyzed **15** KPIs like budget, project completion, IP generation in Snowflake to optimize projects & foster invention
- □ Built Azure MLOps pipeline via DevOps, App Service, Docker, GitHub Actions, CLI; cutting models rollout time to **30** mins
- □ Crafted "EagleGPT" on top of ChatGPT, by improving conversational AI dialogues, model responses, & backend system
- □ **Extra-Efforts:** Built & integrated **51.47%** (35 out of 68) web-app modules - React, FastAPI, PostgreSQL, Alembic, Postman

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| **Graduate Research Assistant (Machine Learning)** | **Feb 2023 - May 2023** |
| *Northeastern University* \| Tech Stack: Computer Vision, Image Analysis, DeepFace Model, AWS Sagemaker | *Boston, MA* |

- □ Feature engineered images via OpenCV, Keras computing **20** attributes in **30 secs** for each **1000+ records** leveraging NEU's Discovery (High Performance Parallel Computing Virtual Machine) surging performance in speed and time by **80%**
- □ Executed Deepface model on AWS SageMaker; got **25% boost** in precision, F1 score for Marketing Research Academia

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| **Data Engineer** | **Dec 2020 - Aug 2022** |
| *UST Global (Xpanxion).* \| Tech Stack: GCP, AWS, Databricks, Hadoop, Teradata, Snowflake, Collibra, Salesforce | *Pune, India* |

- □ Constructed **ETL pipeline** using Kafka, NiFi, Snowflake; elevated data influx **25x**, trimmed daily execution time by **4 hours**
- □ Overhauled Hadoop data prep, achieved **20% surge**, cut creation time from **12 to 1 hour**, with tuned ETL jobs in Teradata
- □ Migrated ETL pipeline to AWS Glue, Redshift, Lambda, Step Functions, Terraform for credit reporting agency client
- □ Enhanced **time series forecasting** by **30%** with GCP's TensorFlow & AutoML, optimizing hyperparameters & A/B testing

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| **Senior Software Engineer Analyst** | **Mar 2019 - Dec 2020** |
| *Accenture* \| Tech Stack: ETL, Restful APIs, AWS (EMR, S3, Redshift), PySpark, SQL, Stored Procedures, UI/UX | *Mumbai, India* |

- □ Led creation of **in-house library** via **React**, **Python** for reusable modules & saving **80+ monthly hours for pharma client**
- □ Produced **100+** PySpark reports using queries, views, stored procedures, window functions to get 7**5% reporting efficacy**
- □ Configured **ETL Pipeline** using **AWS** EMR, S3, Redshift achieving **30% reduction** in data processing time in **3 weeks**
- □ Mentored **5** junior team members in sharing coding practices, KTs in **system architecture**, code reviews, problem-solving

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| **System Engineer** | **Mar 2017 - Mar 2019** |
| *Infosys* \| *Tech Stack: Java (SpringBoot), React, JavaScript, HTML, CSS, Automation Testing, NoSQL, GraphQL* | *Pune, India* |

- □ Enhanced **banking client** agile project by building Spring Boot microservices, React UI using MongoDB & GraphQL
- □ Built testing framework with **30+ distinct cases** using Java, Selenium, TestNG, Karate, RestAssured for CI/CD pipeline

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| **Business Intelligence Intern** | **Nov 2016 - Jan 2017** |
| *Rendered Ideas* \| *Tech Stack: Sentimental Analysis, Microsoft Excel, SAS, ELT (Extract Load Transform)* | *Mumbai, India* |

- □ Revamped player engagement analysis using **SAS**, reducing ELT time by **8 hours**, achieving **10% revenue growth**
- □ Optimized **sentimental analysis** by dataset construction via feedbacks, creating **10x surge in game downloads** worldwide

## Academic Projects

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| **Netflix Movie Recommendation Engine \|** *AI & ML \| Data Mining \| Data Science\| Data Wrangling* | **Jan 2024** |

- □ Transformed Netflix Prize Data from .txt files into consolidated CSV, employed **Collaborative Filtering** for personalized recommendations, **web scrapped** genre from IMDB, executed on Discovery (Northeastern's HPP VM) for **5x speed**

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| **Aircast - Air Quality Forecasting** \| *ML \| MLOps Engineering \|Data Augmentation \| MVP Architecture* | **Apr 2023** |

- □ Crafted Streamlit app, orchestrating **DaaS** with Amazon S3 and **RDS**; informed Air Quality forecasting via **Hugging Face** LSTM model with RMSE: 0.8 in EC2, integrating ML-as-a-Service (**MLaaS**) using FastAPI, Airflow, Nginx, Docker, Kubernetes, PostgreSQL, CloudWatch, leveraged the Great Expectations Tool for data quality validation

## Honors & Awards

**Promotion** to **Senior** SDE at Accenture (**Mar 2020), Pat on the Back Award** at UST-Xpanxion (**Jan 2022**)