# Neha Jagdish Patil

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# Education

**Master of Science in Data Analytics Engineering** Expected May 2025

**Northeastern University, Boston, MA,** GPA: 3.8/4.00

Coursework: Data Management for Analytics, Computation and Visualization for Analytics, Data Mining in Engineering Activities: Director of Events, Data Analytics Engineering Student Organization; Graduate Leadership Institute

**Bachelor of Technology in Computer Science** Aug 2017 - Apr 2021

**Dr Babasaheb Ambedkar Technical University, India**, GPA: 3.56/4.00

Coursework: Data Structures and Algorithms, Object Oriented Programming, System Programming and Operating Systems, Machine Learning, Artificial Intelligence, Business Management

Activities: Secretary, Debate Society, Organizer, Impetus and Concepts

# Skills

**Programming Languages:** C++, Python, SQL, NoSQL, Unix

**Databases:** MS SQL Server, MySQL, Oracle DB, PostgreSQL

**Visualization Tools:** Tableau, Power BI, Visio, Microsoft Excel, Looker

**Data Engineering:** Database Design, Data Modeling, Data Warehousing, ETL, Big Data Technologies (Spark, Hadoop), Git **Data Science:** Classification, Regression, Neural Networks, Descriptive, Quantitative, Predictive, Statistical Analytics **Cloud and Infrastructure:** AWS (Redshift, S3, Athena, CloudWatch, EC2, Lambda, RDS, Quick Sight, Data Pipeline, Glue)

# Work Experience

**AI/ML Engineer** , Accenture, *Pune, India* Oct 2022 - Jul 2023

* **Contributed** to the **development** and testing of **machine learning models** for predictive maintenance in semiconductor manufacturing.
* Collaborated with a multidisciplinary team of data scientists and hardware engineers to improve model accuracy by 20%.
* Investigated cutting-edge **AI/ML** and automation methods to enhance the existing R&D processes.
* **Analyzed** large datasets using **Python** and **SQL** to identify patterns and insights, supporting the R&D team in **innovative**

projects.

* Developed and **deployed** a recommendation system for optimizing production schedules, reducing downtime by 15%.

**Software Data Engineer**, Accenture, *Pune, India*Jul 2021 - Sep 2022

* Built 210 database objects, complex queries, deployed **125 customizations** in Microsoft SQL Server.
* Streamlined **CRM lifecycle** for Fintech product Voyager by resolving **340 client issues** & reducing resolution time by 25%.
* Developed ETL using Python to load financial data of property and vendor management into databases.

**Business Intelligence Intern,** V3 Data Solutions, *Nashik, India*Apr 2021 - Jun 2021

* Developed **ETL** pipeline in data warehouse transforming & loading over 100000 supply chain data points into Databricks.
* **Coordinated** with the supply chain team to automate weekly reports in inventory to reduce manual efforts by 100%.
* Integrated **Power BI** to forecast demand, **supply chain** operations to reduce stock outs by 10%, expenses by 18%.

# Projects

**Deep Learning and Quantum Generative Models for High Energy Physics Calorimeter Simulations** (**Link)**: Developed advanced generative models using deep learning and quantum computing for high energy physics simulations. Achieved a 25% increase in simulation accuracy and **collaborated** with a team of physicists and data scientists.

**Database Design for E-commerce Management System (** [**Link**](https://github.com/neha123-sfsf/E-Commerce-Database-Management-System)**):** Architected Amazon management database, converting UML/EER model into normalized relational model in MySQL, in MongoDB. Resulted in 30% increase in data accessibility. [**Movie\_recommender\_system**](https://github.com/neha123-sfsf/movie_recommender_system) **(** [**Link**](https://github.com/neha123-sfsf/movie_recommender_system)**):** Developed a personalized movie recommender system using machine learning algorithms to enhance user experience by providing tailored movie suggestions. Developed a personalized movie recommender system using machine learning algorithms, achieving a **30%** increase in user engagement through tailored movie suggestions.

**IMDb Movie Data Analysis (** [**Link**](https://github.com/neha123-sfsf/IMDb-Data-Analysis-Python-Tableau)**):** Performed data preprocessing, exploratory data analysis, time series analysis, predictive modeling using Python & Machine Learning, achieved predictive **accuracy of 91.2%**. Build interactive Tableau dashboard.

**HR Analytics Dashboard using Excel, Power BI, Dax (** [**Link**](https://github.com/neha123-sfsf/HR-Analytics-PowerBI)**):** Developed Power BI dashboard integrating Excel data, utilizing DAX functions for HR analytics. Streamlined operations, saving 3-4 hours daily for HR team, improved decision-making.

**AWS-ETL-DataLake-S3-Songs Playlist** [**(Link**](https://github.com/neha123-sfsf/AWS-ETL-DataLake-S3-SongsPlaylist)**):** Built recommender systems (**KNN, SVD, Neural Networks**) with 51% accuracy and a sentiment analyzer (**logistic regression, random forest, XGBoost**) with 91.4% accuracy, followed by performance evaluation.

# Certifications

[LeetCode – 50 SQL Challenge,](https://leetcode.com/u/Neha_Patil3/) [Hands on Essentials – Data Warehouse](https://www.credly.com/users/neha-patil.0fe999bb/badges) , Essential Cloud Infrastructure: Core Services