Natasha Shereen Benita

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Profile

Master's student in Artificial Intelligence with a strong foundation in Python development, backend engineering, and automation. Experienced with SQL, Linux environments, and automation frameworks. Demonstrated ability to build data pipelines and streamline business processes using scalable solutions. Currently working on a personal portfolio using React to showcase full-stack development skills. Proactive and self-motivated, with strong collaboration skills and a passion for solving real-world problems through technology.

Education

M.Sc Artficial Intelligence, Brandenburg University of Technology

2023 - present

Relevant Course Work: Explainable Machine Learning, Causal Data Science ,Research, Documentation

Cottbus, Germany

B.Tech. Computer Science and Engineering,

2016 - 2020 Chennai, India

Sathyabama Institute of Science and Technology

Skills

Programming

Python, SQL, R, React (in progress)

Al and ML Frameworks

Scikit-Learn, TensorFlow, Keras

Soft Skills

Communication, Collaboration, Problem-Solving, Self-Motivation, Creativity

Databases & Query Languages:

SQL, MySQL, PostgreSQL (basic), Data Modeling

Testing & Automation:

H2O AutoML, Test Automation

Other

MATLAB, MS Office, PowerBI

OS & Tools:

Debian GNU/Linux, Shell Scripting, Git, GitLab CI

MS Excel

Pivot Tables, VLOOKUP, Conditional Formatting, Data Validation, Basic Macros

Professional Experience

Software Developer Intern, Shiash Info Solutions Private Limited

10/2020 - 01/2021

Chennai, India

• Trained in JAVA domain using Eclipse

- Worked with MySQL database (Linux shell scripting)
- Developed mini projects in Java
- · Created and optimized SQL queries for backend operations

Web Development Intern, Sneham Business Solutions Pvt.Ltd, Chennai

12/2018

- Focused on Enterprise Resource Planning
- Worked on Inventory management applications for businesses
- Collaborated on backend logic and data flows for ERP and inventory systems.

Chennai, India

• Developed a Prototype which can be used by a multi-brand home appliances dealers to manage and support their sales across various outlets on their smartphones, resulting in a 20% reduction in manual data entry.

Faculty/Trainer, CMSDI Academy

11/2020 – 07/2021 Chennai, India

• Used Excel for tracking student data and automating reports.

- Taught English, microfinance, customer service, professional skills, workplace readiness, and MS Office for underpriviledged students
- Event organizer at a workshop Last Mile Connectivity for MSW students, DG Vaishnav college,

02/2020 – 12/2022 Chennai, India

Part-time trainer, WordSmith Ielts Academy

Trained Students for the IELTS Exam

Projects

Personal Portfolio Website (In Progress), React, HTML, CSS, GitHub Pages

present

- Building a responsive portfolio website using React to showcase my projects and skills
- Integrating interactive UI components and working with reusable components and hooks
- Demonstrates frontend-backend integration and modern design practices

Patient Readmission Prediction using H2O AutoML

10/2024 - 02/2025

- Built scalable data pipeline using H2O AutoML; automated feature engineering and model evaluation processes.
- Implemented **H2O AutoML** (Machine learning Automation)to predict **critical patient discharge** and **hospital readmission risks** using the **eICU dataset**.
- Preprocessed and cleaned Data set
- Performed Exploratory Data Analysis, feature engineering, class imbalance handling, and automated model selection, achieving 99% accuracy (AUC = 1.0) with Gradient Boosting Machine (GBM) model being the Best performing Model.

Music Instrument Classification using Traditional Methods

09/2024 - 02/2025

- Developed a GMM-SVM hybrid model for classifying musical instruments, leveraging MFCC feature extraction and probability-based modeling.
- Optimized classification accuracy through dimensionality reduction (PCA/LDA), achieving 83% accuracy with traditional methods and 91% with LSTM models.
- Performed Evaluation Metrics

Cervical Cancer Prediction using Machine Learning

09/2019 - 06/2020

- Implemented Gaussian Mixture Models (GMM) and Probabilistic Neural Networks (PNN) in MATLAB for early cervical cancer detection.
- Designed feature extraction techniques using Histogram Division, Entropy
 Measurement, Lab Color Space, and GLCM to enhance classification accuracy.
- Development of early cancer screening and detection

Publications

Survey of Cervical Cancer Prediction Using Machine Learning, Springer ☑

07/2021

Awards

Best Paper award, Sathyabama University

06/2020

Received Best Paper award and participation certificate for paper and presentation on cervical cancer during 'National Conference on Computational Intelligence and Data Science' organized by Sathyabama University, at NCCIDS (June 2020)

Courses

Intoduction to Data Science virtual internship, Commonwealth Bank (Forage)

03/2025

- · Designing a Database
- Data Analyses Approaches
- Data Aggregation and Anonymisation
- Excel Advanced (Pivot Tables, Lookup Functions, Macros)
- Designed a relational database schema simulating a bank's internal system. Gained exposure to financial data workflows and anonymization practices.

R programming for Data Science and Analysis, Udemy

06/2022

Advanced Visualization with GGPLOT2, Data Frames

Level 1 & 2, Machine Learning, Lema Labs IIT Madras

09/2020 - 02/2021

• Worked on Recommendation systems

Chennai, India

• Types of Regression, Supervised and Unsupervised Algorithms, Python Programming

IBM Generative AI for Executives and Business Leaders, Coursera

06/2024

 Explored applications of AI in business administration, asset tracking, and decision-making.

Digital Marketing and E-Commerce Certification, *Google*

present

Languages

English	German
C2 lelts	A2

Co-Curricular Activities

Organized and supported a workshop on Block Chain: The **Next Big Thing, Sathyabama University (February 2019)**

Participated in club events and activities as member of Mozilla club at Sathyabama University, (August 2018 to May 2020)

Webinars

Business Resilience and Risk Management, IEEE Student branch, Sathyabama University, June 27 th 2020

Big Data – Data Analysis, SRM Valliammai university, October 10 th, 2020

Data Analytics, IEEE Student Branch Sathyabama University, October 31 st, 2020