Samrithaa Jeevaratnam
Artificial Intelligence & Data Science - Undergraduate

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PERSONAL STATEMENT

A trilingual data science and AI enthusiast eager to utilize skills in an internship, with a passion for innovation and societal impact, aiming to contribute by delivering solutions that enhance user experiences.

PROJECTS

1.Acci Tracker: A Road Accident Prediction App
As part of the accident prediction app team, the primary focus was on refining data quality, engineering features, and fine-tuning models for accurate accident severity prediction using machine learning techniques.
Technical Proficiency: Machine Learning (Logistic Regression, Randon Forest classifier)/ Flask/ Git & Git Hub

2. Wine Quality Prediction (Ongoing)
Developing a machine learning model to predict wine quality based on chemical parameters like acidity and citric acid content. Utilizing data analysis and visualization, data preprocessing, and various algorithms to enhance prediction accuracy.
Technical Proficiency: Machine Learning (Random Forest Classifier)

3.HCHO Insight: Analyzing Air Quality & Climate in Sri Lanka
Engaged in a data-driven project using advanced techniques to analyze formaldehyde (HCHO) data in Sri Lanka for air quality and climate insights. Leveraging technical proficiency to interpret patterns, identify sources, and
develop predictive algorithms, utilizing Sentinel-5P satellite observations for environmental sustainability and public health initiatives.
Technical Proficiency: Machine Learning (LSTM), Spark, Power BI

4.Predicting Income Using Census Data
Currently working on a classification project using census data to predict income. Implementing Naïve Bayes and Random Forest models with optimal dataset preparation and evaluation metrics comparison. Utilizing Python libraries like scikit-learn for model implementation and analysis.
Technical Proficiency: Machine Learning ((Naive Bayes, Random Forest Classifier)/ Git & Git Hub

5.Ontology for Mechanical Engineering Knowledge
Engaged in a comprehensive project to develop a domain-specific ontology for mechanical engineering. The ontology supports various facets of mechanical engineering, including engineering design, knowledge discovery, quality control, and education.
Technical Proficiency: Knowledge Graphs/ XML

6.Fuzzy Logic-Based Error Detection and Correction for Data Storage
Developed a fuzzy logic-based error detection and correction system for a data storage company. The system enhances data reliability by identifying and mitigating errors in stored data.
Technical Proficiency: Fuzzy Logic/ Error detection/ Python

7.MANS Fitness Web Application
Designed the Product and About Us User interfaces (UIs) for the fitness E-commerce website. Implemented front- end functionality using HTML, CSS, and JavaScript. Integrated XML for data management, enhancing user experience.
Technical Proficiency: HTML, CSS, JavaScript/ Git & Git Hub

8.Rally Championship Management System
Created a JavaFX software individually to manage rally championships comprehensively. The application dynamically generates race dates and locations while efficiently organizing detailed driver information and race- specific data, ensuring seamless championship management.
Technical Proficiency: JavaFX/ Java Programming

9.SCAMS Club Membership Management System
Led the design and implementation of core features within the school activity club management system. Utilized JavaFX to craft the user interface (UI) and functionality for student member login and signup. Integrated a view table for enhanced interaction and data flow within the system.
Technical Proficiency: JavaFX/ Java Programming/ Object Oriented Programming/ Git & Git Hub

SKILLS & EXPERTISE

Other Technical Proficiencies
- R
- Py torch, TensorFlow, sci-kit learn
- Power BI, Microsoft Suite
- AWS Cloud

Soft Skills
- Critical Thinker
- Leadership
- Teamwork
- Problem-solving skills
- Coordination

EDUCATION

2022 - Present
Currently reading the degree in B.Sc.(Hons) Artificial Intelligence & Data Science at IIT affiliated with Robert Gordon University, Aberdeen, Scotland.

Modules completed in Year 02
Artificial Intelligence
Advanced Mathematics for Data Science
Data Science Group Project
Data Engineering
Machine Learning
Professional Development
Simulation and Modelling Techniques
Object Oriented Development

Modules completed in Year 01
Computer System Fundamentals
Computational Mathematics
Data Structures and Algorithms for Artificial Intelligence
Database System
English Communication Skills
Programming Fundamentals
Web Technology
Computational Mathematics

2020 - 2022
Cambridge GCE Advanced Level (Royal Institute International School) Subjects - Business, Computer Science, Economics, Mathematics -A, 2B and E.

2019-2020
Cambridge GCE Ordinary Level (Royal Institute International School) Subjects - Business Studies, Computer Science, Economics, Accounting, English, Mathematics, Environmental Management - 2A*, 3A, 2B.

VOLUNTEERING

CLUBS & SOCIETIES
- Member of IEEE Volunteers 23/24
- Member of the Rotaract Club of IIT.
- Member of the Leo Club of IIT.
- Volunteer at Stagecraft-IIT 2023.
- Member of Interact Club of Royal Institute 2021/2022.
- Senior Prefect of Royal Institute International School - 2018-2020.
- Junior Prefect of Royal Institute International School - 2017-2018.

CERTIFICATES & AWARDS

- Completed grade 02 in CALSDA with Honors - 2016.
- The Sri Lankan Festival For Performing Arts 2011 - All Island Winner.
- Received Distinction & Commendation in Sri Lankan Festival For Performing Arts - 2009, 2010, 2011 and 2012.

REFERENCE

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