

Sobhan Salarian — Data Scientist

Sydney, NSW, Australia

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Profile

Master of Data Science student with strong analytical thinking and a passion for extracting actionable insights from data. Skilled in data analysis, visualization, machine learning, and big data processing. I enjoy solving real-world problems through data-driven approaches and continuously improving my technical expertise, especially in Python, SQL, and distributed systems.

Education

Macquarie University <i>Master of Data Science</i>	Sydney, NSW 2025—Present
Kermanshah University of Technology <i>Bachelor of Computer Engineering</i>	Kermanshah, Iran 2018–2023
Adel High School of Isfahan University <i>Pre-University, Mathematics Major</i>	Isfahan, Iran 2017–2018
Adel High School of Isfahan University <i>High School Diploma, Mathematics Major</i>	Isfahan, Iran 2014–2017

Technical Skills

Programming: Python (Pandas, NumPy, Matplotlib, Seaborn, Bokeh), SQL

Big Data: MapReduce, MrJob, MongoDB, PyMongo, R-Tree Structures, Skyline Queries

Machine Learning: Regression Models, Data Preprocessing, Feature Engineering

Databases: MySQL, MongoDB

Data Visualization: Power BI, Matplotlib, Seaborn, Bokeh

Tools: Git, GitHub, Jupyter, VS Code

Web: HTML, CSS

Professional Experience

IRISA Company <i>Data Science Intern</i>	Isfahan, Iran July—September 2022
○ Cleaned and preprocessed raw datasets using Python, resolving missing and inconsistent values. ○ Loaded and managed processed data in MySQL databases using Python connectors. ○ Assisted in designing data pipelines to improve data availability and reliability.	

Projects

Spatial Data Analysis with R-Trees & Skyline Queries	2025
○ Implemented R-Tree data structures from scratch to enable efficient spatial querying. ○ Developed algorithms for Nearest Neighbor Search and Skyline Querying on 2D datasets. ○ Compared performance across Sequential Scan, Branch-and-Bound, and Divide-and-Conquer BaB methods. ○ Analyzed datasets including restaurants, shops, parking locations, and housing records.	

- Big Data Weather Analysis using MapReduce & MongoDB* 2025
- Processed large Australian weather datasets using MongoDB and MapReduce (MrJob).
 - Built MapReduce pipelines for sorting observations, detecting extreme weather chains, and computing rainfall statistics.
 - Designed flowcharts and documentation illustrating the distributed processing workflow.
- Tennis Tournament Data Analysis* 2024
- Analyzed tournament data to answer 25 analytical questions on winners, hosting locations, and performance patterns.
 - Used Pandas for handling parquet files, data cleaning, and statistical processing.
 - Visualized insights using Matplotlib and NumPy.
- Personal Portfolio Website* 2024
- Built and deployed a personal portfolio website using HTML, CSS, and JavaScript.
 - Published the site using GitHub Pages to showcase projects and technical skills.
- Flight Delay Analysis System* 2023
- Analyzed flight delay trends across multiple airlines using Python (Pandas, Bokeh).
 - Developed a machine-learning based recommender system suggesting the least delay-prone airlines.
 - Created interactive delay visualizations using Bokeh.

Professional Certifications

- Daneshkar Academy**
- Data Analysis Bootcamp* 2024
- Covered statistics, SQL, MySQL, data manipulation with Pandas/NumPy.
 - Built dashboards and reports using Power BI.
 - Learned machine learning fundamentals and Git/GitHub workflows.
- Coursera**
- Python Programming for Everybody* 2023–2024
- Learned foundational and intermediate Python programming concepts.
 - Gained experience with database integration and basic data analysis.
- Score: 87**
- TOEFL iBT* 2023
- Overall: 6.5**
- IELTS Academic* 2024

Languages

- Persian (Farsi): Native**
- English: Professional Working Proficiency** IELTS 6.5