

Akarshan Jaiswal

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Professional Summary

Data Scientist with expertise in Python, R, and TensorFlow, known for leading neural network-based tool development at Nissan Digital India. Notable projects include a Japanese to English translator and COVID-19 data analysis, driving impactful data science solutions. Skilled in designing ML models and building neural networks, with a collaborative spirit and strong problem-solving abilities.

Technical Skills and Interests

Programming Languages:	Python, Java, JavaScript
Tools and Libraries:	TensorFlow, Pandas, Numpy, Seaborn, D3
Development Tools:	VS Code, Postman, IntelliJ, PyCharm
CI/CD Tools:	Git, GitHub, BitBucket, Jenkins
Gen AI Tools:	Bard - Gemini Pro, ChatGPT-3.5, Dall-e, Microsoft Co-pilot
Databases:	MongoDB, PostgreSQL, Postgis, MySQL, MSSQL
Operating Systems:	Windows, Linux
Relevant Coursework:	Data Mining & Machine Learning, Data Visualization, Biological Inspired Learning, Database Management System, Software Engineering
Soft Skills:	Problem Solving, Self-learning, Presentation, Adaptability, Collaborator, Team Leader, Mentor

Education

Master of Science (M.Sc.) in Data Science

(2023-2024)

School of Mathematical and Computer Sciences, Heriot-Watt University, Edinburgh, Scotland, UK

- Developed proficiency in statistical analysis, machine learning, deep learning, Python, and R. Also assisted with skill development in handling large datasets to derive actionable insights for informed decision-making.

Bachelor of Technology (B. Tech) in Computer Science and Engineering

(2014-2018)

Amity School of Engineering & Technology, Amity University, Lucknow Campus, India

- Developed expertise in software development, algorithms, and system architecture. Gained experience in solving complex problems and designing efficient solutions. Garnered skill in programming languages like Java, C++, and Python

Scholarships

Edge AI - Intel Edge AI Scholarship

(December 2019 - March 2019)

Received Level-I Scholarship from Intel under Intel Edge AI Scholarship at Udacity.

Achievements

High Five Award - Nissan Digital India

(July 2021)

- Received the Team Award at the Nissan Annual event for development of an Online Platform for capturing Test Car Requirements.

High Five Award - Nissan Digital India

(November 2022)

- Received the Team Award at the Nissan Annual event for contributions towards a project encompassing various data engineering activities.

Grade "A" in Dissertation - Heriot-Watt University

(June 2024)

- Dissertation titled "Comparison and Evaluation of Neural Network Architectures".

Professional Experience

Nissan Digital India, Thiruvananthapuram, India

(Dec 2018 - Dec 2022)

Software Engineer 2 and Software Development Engineer

- Lead a team of five for development of Python based Neural Network using TensorFlow for Japanese to English Translation tool Development.
- Participated in various PLM based activities and Research based optimization project.
- Worked in many different projects covering different domains such as Data Science, PLM, Web development, Schedule optimisation and algorithm optimization applications.
- Developed various Advanced SQL based functions for a Web application with thousands of live users.
- Developed a requirement capturing tool with CRUD based SQL functions developed using Java and deployed in AWS.
- Performed Data Analysis for Optimization of "Data Cleaning" process of a Data Science based application. Resulting in resolving a major bug and increasing overall efficiency by 15 %.
- Extracted Data using Python from various sources [Excel, JSON, XML and more] for loading in database.
- Researched and Implemented various Proof of concepts.
- Strong knowledge on creating Workflow, Life-cycle implementation, and Agile Methodologies such as Kanban and Scrum.
- Direct experience with data analysis, performance monitoring, code profiling and system debugging.

Student Staff, Heriot-Watt University, Edinburgh, Scotland, UK

(July 2023 - August 2023)

Online

- Raised funds for access bursaries as part of a 6-member team, helping underprivileged or underrepresented university students.
- Networked with alumni to raise awareness and funds, accumulating £1500.

Projects

Portfolio Website: akarshan-jaiswal.github.io

Japanese to English Language Converter

- A context-based Japanese to English document translator.
- Developed a deep neural network model - LSTM, which learns from a custom dataset, and translates text from Japanese to English.
- Provided context-based translation, to give meaningful outputs.
- Designed the solution to work on a local system with no dependency on the Internet or any web service.
- Integration of AI model with web application using Flask and Python.
- Development time - 3 months, Dataset size - 80000 distinct samples, Accuracy - 81%

Comparison and Evaluation of Neural Network Architectures

- Implementation of many types of Neural Network architectures with respect to different Mathematical problems.
- Conducted a detailed literature review on many existing neural network architectures and their respective applications.
- Developed a standard evaluation framework for comparison of these architectures.
- Generated the datasets for evaluation and training purposes.
- Implemented and trained different neural networks.
- Technology Used: Python.
- Libraries Used: TensorFlow, Numpy, Matplotlib, Pandas.

Covid-19 Data Analysis

- Statistical analysis of total COVID-19 cases, based on varied factors and Geographical regions.
- Visualization and Exploratory Data Analysis of world-wide cases of Covid-19 done using various datasets.
- Executed several types of Clustering, made use of Boxplots and other data consolidation techniques for processing the datasets.
- Implementation of distinct types of Graphs and charts such as Choropleth, Scatterplot, Line graph and Streamgraph using D3 library.
- Implementation of Interactive Dashboard with dynamic shifting and switching data based on User inputs.
- Technology Used: Python, JavaScript, CSS, HTML. – Libraries Used: Numpy, Matplotlib, Pandas, D3.