

Avisha Singh

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EDUCATION

Master of Science in Engineering Data Science

Aug 2021 - May 2023

University of Houston - Houston, TX (GPA-3.5/4)

Relevant Courses: Big Data Analytics, Machine Learning & Computer Vision, Data Science for Security, Database management, Probability & Statistics.

Bachelor of Technology in Computer Science and Engineering

Jul 2017- Jun 2021

Jaypee University of Information Technology - Himachal Pradesh, India

Relevant Courses: Data Structure and Algorithms, Deep Learning, Computer Networks, Image Processing.

TECHNICAL SKILLS

Programming languages: Python (NumPy, Pandas, Scikit-learn, Keras), SQL, C++, Java, MATLAB, PySpark

Visualization Tools: Tableau, Power BI, Spotfire, Python (Matplotlib, Seaborn, Plotly)

Business Intelligence tools: SAP business objects, Oracle BI, AWS, Azure Databricks

Spreadsheet Software: Microsoft Excel, Google Sheets

Collaboration and communication tools: Microsoft Teams, Google Meet

PROFESSIONAL EXPERIENCE

Data Engineer | Yati Global Services Ltd | Katy, TX 77494

May 2022 – Dec 2022

- Leveraged Azure Databricks to process and analyze large datasets, resulting reduction in data processing time and improved accuracy of customer segmentation models.
- Developed ETL pipelines using Python and Spark to integrate data from multiple sources into a unified data lake, enabling faster and more accurate decision-making.
- Collaborated with cross-functional teams to develop data visualization dashboards using Tableau, providing business stakeholders with actionable insights into customer behavior and preferences.

Artificial Intelligence Intern | Africa Access 3PL Ltd | Noida, India

Jan 2020 - Jul 2020

- Computed an AI model in logistics in demand prediction and learned efficient ways to pre-process the data, in this case, worked on customer requirements of goods and services. Made the success metrics and implemented algorithms for developing Inventory Needs with an accuracy of 81%.
- Designed and implemented computer vision models using deep learning frameworks such as TensorFlow and PyTorch.
- Assisted in the deployment of AI models in production environments using cloud platforms such as AWS, Google Cloud, and Azure.

ACADEMIC PROJECTS

Visualization of Data Scientist Job Salaries | Pandas, Tableau, Glyphs

Dec 2022

- Implemented data cleaning and filtering techniques in Excel to prepare dataset for analysis.
- Conducted Exploratory Data Analysis (EDA) using Python Pandas to identify patterns in the dataset.
- Utilized Tableau Desktop to create visually impactful representations of Data Science job salaries based on experience levels and job titles for 2020.
- Designed and implemented unique visual representations using Glyphs to enhance the understanding of various experience levels in the data.

Seismic Fault Detection Using Deep Learning | Deep Learning, IoU Metric

May 2022

- Designed and developed an Intrusion Detection System using machine learning algorithms and two-dimensionality reduction techniques.
- Conducted a comparative analysis of five machine learning algorithms (Logistic Regression, Naïve Bayes, Decision Tree, Random Forest, Gradient Boosting) and applied feature selection with Random Forest and PCA for dimensionality reduction.
- Evaluated the performance of the algorithms using the F1 score, with Random Forest emerging as the top performer for recall, precision, and accuracy.

Intrusion Detection System | Machine Learning Algorithms

May 2022

- Developed a system that learns the nature of attacks itself by performing an analysis of five machine learning algorithms (Logistic Regression, Naïve Bayes, Decision Tree, Random Forest, Gradient Boosting) using two dimensionality reduction techniques (feature selection with Random Forest, PCA).
- Compared the performance with the F1 score to capture recall, precision, and accuracy as evaluation metrics, where Random Forest outperformed all other algorithms with both dimensionality reduction techniques.

CERTIFICATIONS

- Tableau Desktop Specialist (Tableau Software, LLC)
- Google Data Analytics (Coursera)
- Azure Databricks & Spark for Data Engineers (Udemy)
- AWS Essential Training for Developers (LinkedIn Learning)
- Pandas Essential Training (LinkedIn Learning)