

AAQIB BASHIR

Jr Data Scientist



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Budgam, Kashmir, 191111



Profile

Dedicated Junior Data Scientist at Chinar Quantum AI (CQAI) with a passion for extracting insights from data and leveraging machine learning techniques to drive informed decision-making. Skilled in data analysis, statistical modelling, and programming languages such as Python and R. Eager to transition into an AI Developer role to further explore the intersection of technology and intelligence. Committed to continuous learning and innovation in the field of artificial intelligence.



Work Experience

Chinar Quantum AI, J&K

Jr Data Scientist (March 2024 - Present)

While being a Jr Data Scientist at Chinar Quantum AI (CQAI);

- Applied various machine learning algorithms, including dimensionality reduction techniques such as Principal Component Analysis (PCA) and Singular Value Decomposition (SVD), to pre-process and analyse large datasets efficiently.
- Utilized clustering algorithms such as Spectral Clustering, K-means, DBSCAN, and HDBSCAN to identify patterns and group similar data points together, contributing to improved data segmentation and classification.
- Collaborated with cross-functional teams to implement machine learning models and algorithms into production environments, ensuring scalability and performance.
- Conducted thorough exploratory data analysis (EDA) to gain insights into data distributions and relationships, guiding data-driven decision-making processes.
- Contributed to the development and optimization of predictive models, leveraging techniques such as Linear Discriminant Analysis (LDA) and Logistic Regression for classification tasks.
- Actively participated in ongoing learning and professional development activities, staying abreast of the latest advancements in data science and machine learning technologies.

Chinar Quantum AI, J&K

Data Science Intern (October 2023 - March 2024)

Developed proficiency in data manipulation and analysis using Python libraries such as NumPy and Pandas, demonstrating the ability to pre-process and clean data effectively to prepare it for analysis. Utilized data visualization libraries including Matplotlib, Seaborn, and Plotly to create informative and visually appealing visualizations, facilitating the communication of insights derived from data analysis. Collaborated with senior data scientists to support ongoing projects by conducting exploratory data analysis, assisting with model development, and providing insights from data visualization. Participated in team meetings and discussions, contributing ideas and insights to enhance project outcomes and improve data analysis processes. Demonstrated a proactive attitude towards learning and skill development, actively seeking opportunities to expand knowledge and expertise in data science tools and techniques.

EDUCATION

Masters In Physics

University Of Kashmir, Hazratbal,
Srinagar, 190006

2017 - 2019

Bachelors In Science

SAM Degree College, Budgam

2012 - 2015

SKILLS

Data Analysis (NumPy, Pandas)

Python

Matplotlib, Seaborn, Plotly

Scikit-Learn

Clustering Algorithms

Principal Component Analysis

Natural Language Processing (NLP)

LANGUAGES

English (Proficient)

Urdu

Hindi

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Projects

Chinar Quantum AI, J&K

1. Document Classification

Description:

Implemented spectral clustering and DBSCAN (Density-Based Spatial Clustering of Applications with Noise) algorithms for document classification based on content similarity. Leveraged techniques such as eigenvalue decomposition, graph partitioning, and density-based clustering to effectively group documents into clusters, facilitating efficient organization and retrieval of information. Improved document classification accuracy and scalability compared to traditional methods, contributing to advancements in text mining and information retrieval.

2. Predictive Maintenance

Description:

Developed a predictive maintenance system utilizing machine learning algorithms to forecast equipment failure and optimize maintenance schedules. Leveraged historical maintenance records and sensor data to train predictive models capable of identifying early signs of equipment degradation. Implemented anomaly detection techniques to proactively detect and prevent potential failures, reducing downtime and maintenance costs. Contributed to the enhancement of equipment reliability and operational efficiency through data-driven maintenance strategies.

3. Data Augmentation

Description:

Implemented data augmentation techniques to generate diverse Request for Proposals (RFPs) for various companies and job titles while conserving variance. Developed a pipeline to automatically create unique RFPs by combining templates with randomized content elements, such as company names, job titles, and requirements. Incorporated a unique identifier generation mechanism to ensure each RFP is distinguishable. By conserving variance, maintained the integrity and authenticity of the RFPs while ensuring they remain unique and representative of different scenarios. Resulted in a robust dataset suitable for training and testing natural language processing models for RFP analysis and response generation.

Projects

University Of Kashmir, Srinagar

Preparation Properties And Applications Of Thin Films

Description:

During my master's program, I conducted an in-depth study on the preparation, properties, and applications of thin films, demonstrating a comprehensive understanding of this field and its practical implications.

Preparation: I researched various methods for depositing thin films, including physical vapor deposition (PVD), chemical vapor deposition (CVD), and Sputtering Techniques. I gained hands-on experience in utilizing these techniques in laboratory settings, mastering the intricacies of film deposition parameters such as temperature, pressure, and precursor choice.

Properties: My research focused on characterizing the physical, chemical, and mechanical properties of thin films. I employed techniques such as X-ray diffraction (XRD), scanning electron microscopy (SEM), atomic force microscopy (AFM), and spectroscopic ellipsometry to analyze the structure, morphology, and composition of the films. Through these analyses, I gained insights into the effects of deposition conditions on film properties, including crystallinity, surface roughness, and optical behavior.

Applications: I explored the diverse applications of thin films across various industries, including electronics, optoelectronics, photovoltaics, and coatings. By understanding the relationship between film properties and performance, I contributed to the development of thin film technologies with enhanced functionalities and improved efficiency. My research findings have practical implications in areas such as semiconductor devices, solar cells, sensors, and protective coatings.

Incorporating my expertise in thin films, I collaborated with interdisciplinary teams to address real-world challenges and advance innovation in materials science and engineering. My contributions to this field reflect my analytical skills, attention to detail, and ability to translate fundamental research into practical solutions.