SURAJ JAYAKUMAR

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Career Objective

A highly motivated Computer Science student with a strong foundation in Python programming, object-oriented principles, and data structures. Passionate about developing efficient, well-documented code and contributing to the maintenance and optimization of digital applications. Eager to leverage skills in scripting, data processing, and database management to assist in developing and maintaining Skywise applications and continuously learn new technologies as a Python Developer.

Experience:

Internship | Miles Education | April 2024 – May 2024

- Leveraged advanced data engineering and analysis skills to uncover insightful information from raw datasets.
- Enhanced data comprehension and decision-making by transforming complex findings into clear visual representations.
- Demonstrated strong problem-solving abilities in extracting valuable information from unrefined data.
- Showcased commitment, enthusiasm, and a strong capacity for rapid skill acquisition throughout the tenure.
- **Skills Used:** Data Engineering, Data Analysis, Data Visualization, Problem-Solving, Learning Ability.

Projects

Author Identification (NLP, Machine Learning & Information Retrieval):

Role – Developer (Team Project)

- Developed an automated author identification system that precisely determined the author of a document from 50 candidates, achieving an **81.3% accuracy through ensemble methods.**
- Designed and implemented a robust preprocessing pipeline for raw textual data, **improving data quality for effective machine learning model training.**
- Leveraged advanced NLP and machine learning techniques, including deep semantic embeddings and various classifiers, to capture subtle writing styles and manage high-dimensional feature spaces.
- **Skills Used:** Natural Language Processing, Machine Learning, Deep Learning, Text Classification, Feature Engineering, Model Evaluation, Ensemble Learning.

Stock Prediction & Recommendation System (Data Analysis, ML & Modeling):

Role - Data Analyst (Independent Project)

- Constructed a comprehensive system for stock and options recommendations by **integrating data analysis, technical indicators, and machine learning models,** leading to astute trading insights.
- Implemented resilient data acquisition and storage mechanisms for historical stock data, ensuring **data integrity and efficient updates for continuous examination.**
- Utilized financial acumen and machine learning models, including various classifiers and recurrent neural networks, with hyper-parameter optimization, to provide accurate stock predictions and options pricing.
- **Skills Used:** Data Science, Machine Learning, Financial Knowledge, Database Management, Web Scraping, Data Handling and Preprocessing, Software Engineering.

Personalized Recommendation Engines (Big Data Analysis & Scalability Insights):

Role - Data Analyst (Independent Project)

- Focused on **deploying personalized recommendation systems** to augment user experience in large-scale applications by gaining a profound understanding of core principles and practical development.
- Executed **extensive data preprocessing, feature extraction, and feature engineering,** which significantly amplified the performance and precision of recommendation algorithms.
- Investigated and deployed diverse recommendation algorithms while **prioritizing scalability and performance** optimization to manage extensive datasets effectively.
- **Skills Used:** Data Analysis & Manipulation, Machine Learning/Algorithm Development, Big Data Analysis, Data Preprocessing & Feature Engineering, Performance Optimization.

Education

B.Tech in Computer Science and Engineering
(Specializing in Artificial Intelligence and Machine Learning)

Jain Deemed-to-be University, Bengaluru, India | 2022 – Present (expected graduation 2026)

Certifications

AI and Machine Learning Full Course	**IBM Skillsbuild**	**2023**
Google Data Analytics	**Coursera - Google**	**2024**

- Provides a comprehensive understanding of data cleaning, data analysis, and data visualization using tools like SQL and spreadsheets – directly relevant to data processing tasks.

Machine Learning in Production	**Coursera - DeepLearning.AI**	**2025**

- Directly applicable to ML Project Lifecycle, Deployment & Monitoring Patterns, and Continuous Monitoring – crucial for productionising AI solutions.

Cloud ML Engineer	**Coursera - Google Cloud**	**2025**

- Focuses on ML Model Productionisation on Google Cloud, Data Pipelines, and MLOps – highly relevant for deploying and managing models on GCP infrastructure.

Technical Skills

- **Programming Languages:** Python, JavaScript(Beginner)
- **AI/ML Frameworks:** PyTorch, TensorFlow, Keras, scikit-learn, XGBoost
- **Generative AI & LLMs:** Generative AI workflows, Prompt Engineering, Retrieval-Augmented Generation (RAG) techniques
- **Natural Language Processing (NLP):** NLTK, SpaCy, Hugging Face Transformers, TextBlob, Text Preprocessing, Semantic Embeddings, Stylometry, Text Classification
- **Data Analysis & Visualization:** Pandas, NumPy, Matplotlib, Seaborn, SciPy, SQL, Tableau, Spreadsheets, Jupyter Notebooks
- **Database Management:** MySQL (Workbench), MongoDB
- **Cloud & MLOps Concepts:** Google Cloud Platform (GCP), AWS (conceptual), Data Pipelines, Application Deployment, Continuous Monitoring, MLOps, Workflow Management, Cloud Infrastructure
- **Version Control:** Git
- **IDEs:** VS Code, PyCharm

Soft Skills

- **Analytical Thinking:** Strong ability to analyze complex data, identify patterns, and derive actionable insights, crucial for research and problem-solving in AI.
- **Problem-Solving:** Proactively identifies challenges and develops innovative solutions, particularly in complex AI/ML development and research scenarios.
- **Adaptability & Learning Agility:** Enthusiastic to learn new technologies and rapidly acquire skills, as evidenced by diverse project work and certifications in rapidly evolving AI domains.
- **Innovation:** Passionate about exploring cutting-edge AI technologies and proposing creative solutions to enhance existing systems and build novel functionalities.
- **Teamwork & Collaboration:** Experience working effectively within teams to achieve common goals, fostering a collaborative environment essential for research and development.
- **Communication:** Clearly articulates complex technical concepts and collaborates effectively with peers and stakeholders.

Extracurricular Activities

Event Organizer | Jain Deemed-to-be University | 2023 – Present

- Collaborated with a team to plan and execute various college events and fests, gaining experience in coordination, communication, and problem-solving within a dynamic environment.