SURAJ JAYAKUMAR

Bengaluru, India | +91 7204215514 | sjsurajjayakumar@gmail.com

github.com/SurajJayakumar2004 | linkedin.com/in/jayakumarsuraj

Career Objective

A highly motivated Computer Science student specializing in Artificial Intelligence and Machine Learning, passionate about leveraging robust programming and advanced analytical techniques to design, develop, and optimize self-learning applications. Eager to apply a strong foundation in model creation, system integration, and performance enhancement to build efficient, scalable, and high-quality solutions, contributing to cutting-edge technological advancements.

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, R
- **AI/ML Frameworks:** PyTorch, TensorFlow, Keras, scikit-learn, XGBoost
- **Generative AI & LLMs:** Generative AI workflows, Prompt Engineering
- **Natural Language Processing (NLP):** NLTK, SpaCy, 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), Data Pipelines, Application Deployment, Continuous Monitoring, MLOps, Workflow Management
- **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.