

YASH RAJ

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Innovative Computer Science Engineer with strong expertise in machine learning and data science. Skilled in applying advanced algorithms to solve complex problems, enhancing efficiency and accuracy. Proficient in data manipulation, analysis, and visualization, as well as cloud computing and deployment technologies. Committed to continuous learning and improvement, with a passion for leveraging technical skills in artificial intelligence and data analytics.

SKILLS

Technical Skills:

Programming Languages: Python, C, C++, R, SQL.

Libraries and frameworks: Pandas, NumPy, Tensorflow, Keras, PyTorch, Scikit-learn, OpenCV, Statsmodels.

Data Manipulation and ETL: SQL, MySQL, MongoDB, Apache Spark.

Others: Jupyter Notebooks, Data Preparation, MS Excel, Powe BI, Git and GitHub, Shell, DVC, MLflow, Dialogflow, Docker, Kubernetes, AWS, Azure, GCP, Selenium, LaTeX, HTML, CSS, JS, APIs, FastAPI, PySpark, NLP, Computer Vision, LLMs, Langchain, Cloud computing, Cybersecurity, GitHub Actions, CI/CD pipelines.

Soft Skills: Critical Thinking, Problem-Solving, Attention to Detail, Strong Communication, Team Collaboration, Project Management, Time Management, Adaptability, Data-driven Decision Making, Communication Skills, Customer Service, Value Proposition, Stakeholder Management, Business Requirements, Research & Analysis, Content Writing, Report Writing, Knowledge Acquisition.

EXPERIENCE

Ignitus WorldWide Co

MADRID, SPAIN

ML-LMS project Intern.

Feb-2023 to Present

Project: Species Composition Prediction with High Spatial Resolution at Continental Scale Using Remote Sensing

- Collaborated with contributors and organizers from INRIA, LIRMM, and Université Paul Valéry, Montpellier.
- Conducted baseline experiments with Bioclimatic, Landsat, and Sentinel data, achieving validation losses of 0.25784, 0.26424, and 0.23555, respectively.
- Designed and implemented a multimodal model integrating tabular data, Landsat cubes, bioclimatic cubes, and Sentinel image patches, achieving a validation loss of 0.31626.
- Engaged in continuous model improvement by experimenting with neural network architectures, loss functions, data augmentation strategies, and hyperparameter tuning.
- Generated high-resolution maps of species composition and biodiversity indicators across Europe to enhance species identification tools and biodiversity management.
- Contributed to the development of tools for biodiversity management and conservation.
- Successfully demonstrated the effectiveness of integrating multiple data sources for species distribution modeling.
- Prepared educational resources and supported conservation planning through actionable insights.
- Enhanced the predictive accuracy and robustness of species identification tools like Pl@ntNet.

Central University of Haryana

HARYANA, INDIA

Minor project Intern.

Sept-2023 to Jan-2024

- Designed and trained a model to accurately detect sleep onset and wake-up phases from wrist-worn accelerometer data, contributing meaningfully to the field of sleep research.
- Performed comprehensive Exploratory Data Analysis (EDA) to understand the characteristics and patterns in wrist-worn accelerometer data and identified trends, outliers, and data distribution through visualizations and summary statistics.
- Loaded and preprocessed accelerometer data to ensure it met criteria for sleep window detection, extracted and engineered relevant features such as anglez and enmo.
- Achieved a commendable accuracy of 92% in detecting sleep onset and wake-up events.

Cloud Counselage Pvt. Ltd.

MUMBAI, INDIA

Machine Learning Intern.

July-2023 to Sept-2023

- Summer Internship 2023.
- Collaborated with a multidisciplinary team to implement ML algorithms, addressing real-world challenges and enhancing comprehension of critical business metrics.
- Attended a variety of industry workshops to gain practical industry experience and enhance knowledge of ML applications in business contexts.

- Conducted research on company data and stakeholders to identify key trends and insights, informing strategic decision-making and contributing to the overall success of projects.
- Contributed on a live project titled "PathfinderED: Navigating Graduation and Career Success," achieving a 90% accuracy on the validation dataset and reduced processing time by 18%, demonstrating efficiency improvements in the project.

BlackCoffer Pvt. Ltd.

DELHI, INDIA

Data Science Intern.

May-2023 to June-2023

- Conducted data mining activities to extract valuable insights from large datasets, leading to increased overall efficiency and cost savings for the company.
- Managed SQL databases and ensure data integrity.
- Applied critical thinking and problem-solving skills to optimize data processes.

Abhyuday IIT-Bombay

MUMBAI, INDIA

Software Developer Trainee

June-2022 to July-2022

Responsibilities:

- Completed a six-week intensive software development program, building a solid foundation in Python application development.
- Developed a robust full-stack application using Python, QT Designer, and managed SQLite databases.
- Enhanced teamwork and communication skills through effective collaboration with team members.

PROJECTS AND COMPETITIONS

Projects([Link](#))

Kaggle Competitions ([Link](#))

EDUCATION

B. TECH (Computer Science and Engineering)

Haryana, India

Central University of Haryana.

Oct-2020 to present

SGPA: 7.86

INTERMEDIATE (High school +2)

Ranchi, Jharkhand

DAV Public School.

May-2018 to July-2020

Percentage: 89%

Relevant Courses

Intermediate Programming, Probability and Statistics, Linear Algebra, Calculus 1-3, Computer networks, Operating systems, Machine Learning, Software Engineering, Distributed Systems, Data structures and algorithms, DBMS.

CERTIFICATIONS

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| • Swayam NPTEL course certification on 'Introduction to Machine Learning'. | Apr 2023 |
| • Swayam IGNOU course certification on 'Introduction to Cyber Security'. | Jan 2024 |
| • Swayam IGNOU course certification on 'Digital Forensics'. | Aug 2022 |
| • Edx MIT 6.00.1X course on 'Introduction to Computer Science and Programming with python'. | Oct 2021 |
| • Swayam IGNOU course certification on 'Image Processing using Python'. | Nov 2023 |
| • Swayam IGNOU course certification on 'Computational Neuroscience'. | Oct 2023 |

PERSONAL DETAILS

Languages: English and Hindi (fluency in English)

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LinkedIn: [to LinkedIn](#)

Kaggle: [to Kaggle](#)

Leetcode: [to Leetcode](#)