

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, VS Code, Data Preparation, MS Excel, Powe BI, Git and GitHub, DagsHub, Shell, DVC, MLflow, Dialogflow, Docker, Kubernetes, AWS, Azure, GCP, Selenium, Orange3, Spyder, LaTeX, HTML, CSS, JS, APIs, FastAPI, PySpark, NLP, Computer Vision, LLMs, LangChain, MLOps, 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 Research Intern.

Feb-2023 to Aug-2024

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.
- Developed a multimodal model integrating tabular, Landsat, bioclimatic, and Sentinel data (validation loss: 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 and successfully demonstrated the effectiveness of integrating multiple data sources for species distribution modeling.
- Prepared educational resources and supported conservation planning through actionable insights also enhanced the predictive accuracy and robustness of species identification tools like PI@ntNet.

Central University of Haryana

HARYANA, INDIA

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.
- Prepared 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

- 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.
- Contributed on a live project titled "PathfinderED: Navigating Graduation & Career Success," achieving a 90% accuracy on the validation dataset and reduced processing time by 18%, demonstrating efficiency improvements in the project.

PROJECTS AND PORTFOLIO

- [Projects](#)
- [Kaggle Competitions](#)
- [Blogs](#)

EDUCATION

B. TECH in Computer Science and Engineering (CSE)

Central University of Haryana

Haryana, India

Oct-2020 to Aug-2024

- SGPA: 7.86

INTERMEDIATE (High school +2 PCM)

DAV Public School

Ranchi, Jharkhand

May-2018 to July-2020

- Percentage: 89%

Relevant Courses

Intermediate Programming with Python, C, Object Oriented Programming using C++, Probability and Statistics, Linear Algebra, Calculus 1-3, Computer Networks, Operating systems, Theory of Computations, Machine Learning, Software Engineering, Distributed Systems, Linux and Unix Programming, Data Structures and Algorithms, DBMS, Cloud Computing.

ACHIEVEMENTS

- 1st Place in Web Development Competition organized by the university coding club, Bytecode Learners.
- Solved 300+ programming problems on LeetCode, ranking in the Top 20% of coders globally.

CERTIFICATIONS

- Introduction to Machine Learning -Swayam NPTEL certification (Apr 2023).
- Machine Learning and Deep Learning - Fundamentals and Applications -Swayam NPTEL certification (Oct 2023).
- Introduction to Cyber Security -Swayam IGNOU certification (Jan 2024).
- Digital Forensics -Swayam IGNOU certification (Aug 2022).
- Introduction to Computer Science and Programming with python -Edx MIT 6.00.1X course certification (Oct 2021).
- Image Processing using Python -Swayam IGNOU course certification (Nov 2023).
- Computational Neuroscience -Swayam IGNOU course certification (Oct 2023).

PERSONAL DETAILS

Languages: English and Hindi (fluency in English)

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LinkedIn: <https://www.linkedin.com/in/yash-raj-8b924a296/>

Leetcode: https://leetcode.com/u/yash_raj121/