

Yash Raj

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Summary

Computer Science Engineer with a solid foundation in Software Development, AI/ML, and Cloud Computing. Experienced in designing, implementing, and optimizing algorithms for real-world applications. Focused on building and deploying scalable, high-performance applications using modern technologies. Strong in cross-functional collaboration, data-driven decision-making, and agile development practices. Continuously exploring new technologies and approaches to solve complex problems and improve efficiency.

Education

Central University of Haryana

Oct 2020 – Sep 2024

Bachelor's of Technology in Computer Science and Engineering (CSE)

CGPA: 7.86/10.00

Experience

Software Developer Engineer

Nov 2024 – Mar 2024

AST Consulting | Noida, UP

- Designed and implemented a scalable HRMS platform using the Frappe framework, streamlining employee data management.
- Reduced operational costs by 40% and boosted productivity by 30% by automating workflows and minimizing manual tasks.
- Automated HR processes, resulting in a 40% reduction in data entry errors, and a 30% improvement in overall data accuracy.

ML-LMS Research Intern

Feb 2024 – Aug 2024

Ignitus Labs | Madrid, EU

- Engineered a multimodal pipeline that integrated diverse data streams, culminating in a validation loss of 0.31626 and significantly enhancing the accuracy of species distribution predictions.
- Optimized model architectures through hyperparameter tuning, resulting in a 20% improvement in predictive accuracy for species identification tool PI@ntNet.
- Created high-resolution maps of species composition across Europe, covering 20+ countries and 10,000+ unique data points, enabling more precise biodiversity management and supporting strategic conservation planning.

Research Intern

Sep 2023 – Jan 2024

Central University of Haryana | Mahendragarh, HR

- Developed a predictive algorithm for sleep onset detection from wrist-worn accelerometer data, achieving 92% accuracy and reducing analysis time by 40%.
- Performed comprehensive Exploratory Data Analysis on 500+ accelerometer series, uncovering key patterns, anomalies, and nightly sleep behavior trends, which informed feature engineering and improved model interpretability by 20%.
- Preprocessed time-series features (ENMO, angle_z, timestamp, step) from 500+ multi-day accelerometer series, enhancing sleep event detection accuracy to 92% with a 15% gain in generalization.

Machine Learning Intern

Jul 2023 – Sep 2023

Cloud Counselage Pvt. Ltd | Mumbai, MH

- Designed a predictive model for the PathfinderED project, achieving 90% accuracy and reducing processing time by 18%.
- Leveraged machine learning techniques to optimize the architecture, leading to 15% improvement in data-driven decision-making efficiency.

Technical Skills

Skills: Software Development, Machine Learning, Data Analysis, Natural Language Processing, Database Management

Languages: Python, C/C++, SQL, R, JavaScript

AI/ML: TensorFlow, Keras, PyTorch, Scikit-learn, LangChain, Transformers (Hugging Face)

MLOps: MLflow, DVC, Docker, GitHub Actions

Data & ETL: Pandas, NumPy, SQL, MySQL, MongoDB, Apache Spark

Computer Vision: OpenCV

Web Development: FastAPI, Flask, HTML, CSS

Visualization & BI: Power BI, Matplotlib, Seaborn, Excel, Orange3

Version Control: Git, GitHub, DagsHub

Tools: Jupyter, VS Code, Linux Shell, Dialogflow, ChatGPT, WordPress

Projects & Blogs

A curated selection of my most impactful projects, showcasing practical applications of Artificial Intelligence, Machine Learning, and Full-Stack Software Development. [🔗 \[Explore Projects\]](#)

A growing collection of thought-provoking articles which explores advancements in AI, cutting-edge research, and the future of emerging technologies. [🔗 \[Read Blogs\]](#)

Achievements

- Qualified UGC NET JRF (2024) in Computer Science and Applications with 98.17 percentile.
- Winner – University-Level Web Development Competition organized by Bytecode Learners (official university coding club), securing 1st place for technical design and innovation.

Certifications & Additional Courses

- **Introduction to Cybersecurity -Swayam IGNOU**
Issued Jan 2024
- **Image Processing using Python -Swayam IGNOU**
Issued Nov 2023
- **Machine Learning and Deep Learning - Fundamentals and Applications -Swayam NPTEL**
Issued Oct 2023
- **Introduction to Machine Learning – Swayam NPTEL**
Issued Apr 2023
- **Digital Forensics -Swayam IGNOU**
Issued Aug 2022

Personal Details

Languages: English (Fluent), Hindi

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