YASH RAJ

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Innovative and results-driven Computer Science Engineer with a strong foundation in AI and Software Development. Proven ability to design, implement, and optimize algorithms for real-world applications. Skilled in data analysis, cloud computing, and deploying scalable AI solutions. Adept at collaborating with cross-functional teams to deliver impactful projects. Passionate about leveraging AI and data-driven insights to tackle complex challenges and drive efficiency. Committed to continuous learning and advancing cutting-edge technologies.

Education

Bachelor of Technology (B. Tech), Computer Science and Engineering (CSE) **(Oct-2020 to Aug-2024)**
Central University of Haryana (CUH) | Mahendragarh, Haryana
GPA 7.86/10

Work Experience

ML-LMS Research Intern | Ignitus Worldwide Co, Madrid, Spain **(Feb-2024 to Aug-2024)**
- Led collaborative initiatives with INRIA, LIRMM, and Université Paul Valéry to enhance biodiversity management using advanced machine learning methodologies.
- Engineered a multimodal model that integrated diverse data streams, culminating in a validation loss of 0.31626 and significantly enhancing species distribution predictions.
- Optimized model architectures through hyperparameter tuning, resulting in a 20% improvement in predictive accuracy for species identification tool Pl@ntNet.
- Developed high-resolution maps of species composition across Europe, empowering strategic biodiversity management and conservation efforts.

Research Intern | Central University of Haryana CUH, Haryana, India **(Sep-2023 to Jan-2024)**
- Developed a predictive model for sleep onset detection from wrist-worn accelerometer data, achieving 92% accuracy and reducing manual analysis time by 40%.
- Performed comprehensive Exploratory Data Analysis (EDA) to elucidate data patterns, successfully identifying significant trends and outliers.
- Transformed raw accelerometer data through meticulous preprocessing and feature engineering, ensuring model reliability for precise sleep window detection.

Machine Learning Intern | Cloud Counselage Pvt. Ltd., Mumbai, India **(Jul-2023 to Sep-2023)**
- Developed a predictive analytics model for the "PathfinderED: Navigating Graduation & Career Success" project, achieving a remarkable 90% accuracy on validation datasets while reducing processing time by 18%.
- Leveraged newly acquired skills in machine learning techniques to enhance the model's efficiency, contributing to improved user experiences and data-driven decision-making processes within the organization.
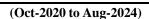
Skills

Technical Stack:
- **Programming Languages:**
  Proficient: Python (5 years), C/C++ (3 years), SQL (2years)
  Familiar: R, JavaScript
- **AI/ML frameworks:** Tensorflow, Keras, PyTorch, Scikit-learn, LangChain
- **Cloud Platforms:** AWS, GCP
- **MLOps Tools:** MLflow, DVC, Docker, Kubernetes, GitHub Actions
- **Data Manipulation and ETL:** Pandas, NumPy, SQL, MySQL, MongoDB, Apache Spark
- **Computer Vision:** OpenCV
- **Web Frameworks:** FastAPI, Flask
- **Data Visualization Tools:** Power BI, Matplotlib/Seaborn, Excel, Orange3
- **Version Control and Collaboration:** Git, GitHub, DagsHub
- **Markup/Styling Languages:** HTML, CSS, LaTeX
- **Other tools:**
  Development Tools: Jupyter Notebooks, VS Code, Spyder
  Scripting: Shell
  AI Tools: Dialogflow, ChatGPT
  Cybersecurity tools

Soft Skills: Critical Thinking, Problem-Solving, Effective Communication, Team Collaboration, Adaptability, Data-driven Decision Making, Research & Analysis, Project Management.

Projects and Portfolio

- A comprehensive overview of all my projects and research works, showcasing my expertise and application of skills across various domains - **Projects**
- A collection of my blogs sharing insights on AI, and emerging technologies - **Blogs**

Achievements

- ❖ Qualified UGC NET JRF (2024) – Computer Science and Applications.
- ❖ Solved 350+ programming and DSA problems on LeetCode, ranking in the Top 20% of coders globally.
- ❖ 1st Place in University-Level Web Development Competition organized by Bytecode Learners, the university's coding club.

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).*

Personal Details

Languages: English and Hindi (fluency in English)
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