YASH RAJ

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Innovative Computer Science Engineer specializing in Data Science and Software Development. Expert in applying advanced algorithms to tackle complex challenges, driving efficiency and accuracy. Proficient in data manipulation, analysis, and visualization, alongside cloud computing and deployment technologies. Committed to continuous learning and passionate about leveraging technical skills in artificial intelligence and data analytics for impactful solutions.

Skills

Technical Skills:

- **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, Report Writing

Experience

Ignitus WorldWide Co | Madrid, Spain
ML-LMS Research Intern | 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.

Central University of Haryana | Haryana, India
Research Intern | 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.

Cloud Counselage Pvt. Ltd. | Mumbai, India
Machine Learning Intern | 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.

Projects and Portfolio

- **Projects**
- **Blogs**

Education

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

Intermediate (High school +2 PCM) | Percentage: 89%
DAV Public School | Ranchi, Jharkhand | May-2018 to Jul-2020

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

- Qualified UGC NET JRF (2024) – Computer Science and Applications.
- Solved 300+ 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).*
- **Computational Neuroscience** *-Swayam IGNOU course certification (Oct 2023).*

Personal Details

Languages: English and Hindi (fluency in English)
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