YUVRAJ SINGH

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SUMMARY

Computer Science graduate with expertise in Python, AI/ML model development, and automation pipelines. Skilled in building AI agents and interactive AI applications, delivering scalable, context-aware solutions that enhance user engagement and streamline processes.

WORK EXPERIENCE

ED/IT Intern, JMRC – Jaipur May 2025 – Jul 2025

- Built 5+ real-time dashboards with Power BI and Dash for 1M+ Apache logs, improving observability by 35%.
- Optimized data ingestion and filtering, cutting query latency by 20% and server usage by 25%.
- Automated reports for 10+ metrics, reducing manual effort by 40% and speeding decision-making by 30%.
- Streamlined insights for cross-team collaboration, improving workflow efficiency by 15% and stakeholder satisfaction by 20%.

Software Developer Intern (Front End), Roshan Dairy Pvt. Ltd. – Remote May 2024 – July 2024

- Increased checkout conversions by 70% and social media engagement by 50% by adding digital outreach buttons, real-time cart updates, and client-side price filters using React.
- Refactored front-end with modular components, reducing UI bugs by 40% and achieving 99.2% uptime.
- Optimized asset delivery and page rendering, speeding up average page load time from 2.5s to 1.8s, 28% faster.
- Streamlined product listing navigation and display, improving discovery speed and user retention by 32%.

PROJECTS

Latency-Aware Task Partitioning and Data Modeling in MEC Networks Ongoing

- Designed a metaheuristic-based framework (ACO, GA, PSO) for optimal task partitioning and user association.

AI-Native Interactive Portfolio - Link Feb 2025 – Aug 2025

- Developed a fully interactive portfolio to replace static designs, featuring a human-like avatar with real-time question answering, expressive gestures, and immersive engagement for recruiters and visitors.
- Integrated OpenAI API and LangChain with a dynamic React/Tailwind UI, enabling adaptive conversation flow, context-aware responses, personalized recommendations, and seamless cross-device accessibility.

Plant Disease Detection Using Image Processing and Machine Learning - Link Feb 2024 - May 2024

- Built structured dataset pipelines with TensorFlow, EfficientNetB4, and Flask to detect plant diseases from leaf images using transfer learning, delivering detailed predictions including symptoms, causes, and treatments.
- Achieved 96% classification accuracy across 38 disease classes on the PlantVillage dataset, demonstrating effective transfer learning and supporting early intervention in precision agriculture.

TECHNICAL SKILLS

- **Languages & Web Development:** Python, C++, SQL, JavaScript/TypeScript, React, Next.js, HTML/CSS, Flask
- **Data Science & AI:** Pandas, NumPy, Scikit-learn, PyTorch, OpenAI API, Hugging Face Transformers, LangChain, Vercel AI SDK, Streamlit, Plotly, Matplotlib, Seaborn, TensorFlow, Machine Learning, AI Agents, Dash
- **Tools & Platforms:** Git, GitHub, VS Code, Jupyter Notebook, Docker, Discord, Power BI, Tableau
- **Soft Skills:** Data-driven Decision Making, Problem-solving, Analytical Thinking, Communication, Teamwork

EDUCATION

Manipal University Jaipur 2025
Bachelor of Technology (B.Tech) in Computer Science Engineering (Hons.) IoT and IS