Sanchit Lamba

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EDUCATION

Manipal University Jaipur

Jaipur, RJ

Bachelor of Technology in Computer Science and Engineering; Honors in AI & ML

Aug. 2022 - May 2026

Experience

Engineering Manager

Sept. 2024 – Present

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Carbon Crunch

Hybrid

- Architected enterprise-wide carbon emissions system tracking 20+ data sources across Scope 1 & 2 emissions, reducing manual reporting time by 90% through automated data integration pipelines
- Led development of carbon credit trading platform serving 7+ corporate clients, implementing real-time pricing engine and automated compliance verification
- Engineered ETL pipelines processing 10,000+ financial/environmental reports through company's internal ecosystems and utilizing that information to adhere to compliance guidelines

Defense Communications System Architect

Indian Defense R&D Project (Army Design Bureau)

Army bases across the country

- Designed inter-device communication framework for defense systems, architecting secure protocols for mission-critical military operations across distributed networks
- Conducted technical assessments at multiple army bases nationwide, gathering requirements from defense personnel to develop architectural guidelines for indigenous equipment R&D modernization
- Currently in process of securing funding grant from Army Design Bureau for full-scale deployment of communication framework

Technical Instructor

Jan. 2023 – Apr. 2023

Camp K12

Remote

• Delivered Python OOP curriculum to 30+ students (grades 8-12) achieving 90% course completion rate through customized teaching methodologies and hands-on project-based learning approach

Projects

State Load Prediction | Python, SARIMA, Numpy, Matplotlib, Power Query M

Dec. 2024

sanchit.cc/sih | github.com/sih

- Finalist at Smart India Hackathon 2024; developed ML-based electrical grid forecasting system analyzing 5 years of historical data from 15+ state dispatch centers, achieving 92% prediction accuracy
- Built automated ETL pipeline using Power Query M processing 50+ heterogeneous report formats, reducing data preparation time from 40 hours to 2 hours weekly

 ${\bf Autonomous\ Vehicle\ Guidance\ System}\ |\ {\it Python,\ CARLA,\ Keras,\ TensorFlow,\ OpenCV,\ PPO}$

Oct. 2023

sanchit.cc/avgs | github.com/avgs

- Developed end-to-end autonomous driving system processing 30 FPS camera feeds and LiDAR data through CNN-based perception and PPO reinforcement learning, achieving 85% navigation success rate
- Trained PPO agent over 500+ simulation episodes with custom reward shaping, reducing collision rate by 65% while maintaining traffic rule compliance above 90% in urban scenarios

NixOS System Configuration | Nix, NixOS, Linux, DevOps, Infrastructure-as-Code

Ongoing

sanchit.cc/nix | github.com/nix

• Engineered declarative system configuration managing 150+ packages and 20+ services across multiple devices, enabling zero-downtime atomic rollbacks and reproducible development environments

TECHNICAL SKILLS

Languages: Python, SQL, Bash, Nix, Power Query M, LaTeX

Frameworks: TensorFlow, Keras, PyTorch, LangChain, Scikit-learn, Pandas, NumPy, Matplotlib, OpenCV

Developer Tools: Git, Docker, Azure, Linux, NixOS, Poetry, CARLA, Qdrant, Arelle

Core Competencies: Machine Learning, Deep Learning, Computer Vision, Reinforcement Learning, System Architecture, ETL Pipelines, Data Engineering, MLOps, DevOps, Cloud Deployment itemize