AKSHAY SURESH

https://akshaysuresh1.com akshay721@gmail.com akshaysureshAS1 akshaysuresh1

Data scientist with expertise in best practices Python coding for agile software development. Played a pivotal role in designing reproducible machine learning codebases with significant industry impacts. Passionate about building innovative software solutions to address challenging real-world problems and deliver sustainable benefits for businesses and society.

WORK EXPERIENCE

Data Science Fellow, Faculty AI 05/2025 – 07/2025
Next-level Hiring: LLM-powered CV Analysis & Candidate Ranking

- **Implemented a retrieval-augmented framework for granular skill evaluation and scalable candidate feedback generation**, cutting recruitment costs by up to 30% per new hire.
- Deployed Python services via FastAPI endpoints, accelerating CV screening from several days to a few hours and boosting hiring efficiency.
- Enhanced fairness in AI-powered recruitment by excluding personally identifying information from candidate skill assessments, promoting equitable hiring outcomes.

Freelance Applied Data Scientist 01/2024 – 04/2025
Artificial Intelligence and Remote Sensing for Positive Human and Climate Impact

- **Orchestrated test-driven software development of a segmentation model** to detect Amazon rainforest cover in satellite imagery with a 97% true positive rate.
- **Evaluated rooftop solar viability through LiDAR analysis for 996 Florida buildings**, projecting that 53% could secure annual profits exceeding $1,000 upon transitioning to solar-powered homes.
- Delivered technical consultancy to an early-stage startup building a data-as-a-service platform, empowering consumers to reduce their monthly electricity bills by up to 15% through tailored recommendations.

Graduate Researcher, Cornell University 08/2017 – 08/2023
Enabling Automated Astrophysical Event Discovery

- **Engineered an automated, memory-efficient pipeline for parallel processing of 10 TB of data** at speeds surpassing 500 GB/hr on supercomputing platforms.
- Developed a novel open-source software to enable the first searches for radar-like transmissions from about 600,000 planetary systems in the Milky Way.

Machine Learning Researcher, Frontier Development Lab USA 06/2022 – 08/2022
Time Series Forecast of Rates of Induced Earthquakes from Underground Carbon Storage

- Integrated physics-based constraints into deep neural networks for 70% accurate earthquake forecasts, aiding in safe climate change mitigation efforts.
- Expanded accessibility of code operation from an estimated 10,000 seismologists to over 5 million individuals with basic computing skills.

TECHNICAL SKILLS

Computer Languages	Python, bash scripting, LaTeX, HTML, SQL
Python Libraries	NumPy, SciPy, PyTorch, Scikit-learn, Matplotlib, GeoPandas, Xarray, Rasterio
Cloud Computing	Amazon Web Services (AWS), Google Cloud Platform (GCP)
Software Engineering	Production code development, Weights & Biases, CircleCI (for CI/CD), Dagster
Geospatial Software	ArcGIS Pro, QGIS
Quantitative Skills	Machine learning, numerical analysis, probability and statistics, signal processing

EDUCATION

MS & PhD (Astronomy & Physics), Cornell University, USA 08/2023
BS & MS (Physics & Mathematics) Dual Degree with Distinction, IISER Pune, India 05/2017