

Vikrant Sharma

Data Engineer and Machine Learning Builder

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PROFILE

Master of Information and Communications Technology candidate at the University of the Sunshine Coast, Adelaide, graduating August 2027. Built eight open-source ML, data and security systems, seven running as live public demos (as of August 2026), sitting at the intersection of data engineering, machine learning and cyber operations. AWS Certified Data Engineer Associate. Oracle Cloud Infrastructure Certified Data Science Professional. NASA Space Apps Global Finalist 2023. Industry experience in data engineering at Nagarro and security analysis at SecurDI.

PROFESSIONAL EXPERIENCE

Software Engineer Intern (Industry Placement) - Voxon, Adelaide (Aug 2026 to present)

- Developing AI capabilities for VoxelOS as part of a Master's industry placement: prototyping and integrating real-time ML models for voxel processing and perception.
- Optimising model inference and deployment pipelines to meet embedded performance constraints, collaborating with firmware and software teams to deliver production-ready proofs of concept.
- Building automated testing and monitoring for model behaviour to keep live demos and internal releases reliable.

Data Engineering Intern - Nagarro, Gurugram, India, remote (Dec 2024 to Feb 2025)

- Designed and optimised dimensional data models on AWS Redshift and Snowflake for enterprise analytics workloads.
- Built ETL pipelines that transformed high-volume transactional data into analyst-ready dimensional tables.
- Delivered iterative client work via Agile and Scrum, collaborating with cross-functional teams of data analysts and product owners to define data requirements and reporting structures.

Cybersecurity Junior Analyst - SecurDI, Ahmedabad, India (May 2023 to Dec 2023)

- Monitored SIEM platforms and triaged alerts to identify and escalate genuine security incidents.
- Authored incident response runbooks adopted by the wider security operations team, standardising response procedures across incident categories.
- Performed OWASP Top 10 web application testing and ISO 27001 / NIST CSF compliance audits across client environments, documenting findings and remediation paths.

SELECTED PROJECTS

Hybrid ML Intrusion Detection System - Master's Capstone (Python, PyTorch, scikit-learn, Scapy, Docker)

- Real-time hybrid NIDS and HIDS combining Isolation Forest, Random Forest and an autoencoder on CICIDS2017. Maps every alert to MITRE ATT&CK tactics so SOC analysts triage in seconds, not minutes. Live Streamlit demo on Hugging Face Spaces.

ThreatLens - Threat Intelligence Platform (Python, FastAPI)

- Correlates CVE data from the National Vulnerability Database with IP reputation and MITRE ATT&CK mappings. Composite scoring pre-ranks alerts by exploit availability, asset exposure and temporal relevance to reduce SOC alert fatigue.

Credit Card Fraud Detection Pipeline (Python, XGBoost, SMOTE)

- End-to-end ML pipeline on the 284,807-transaction Kaggle dataset with a 0.17 percent positive class. SMOTE oversampling for severe class imbalance; Logistic Regression, Random Forest and XGBoost compared with precision-recall threshold tuning.

Cosmic Keys - NASA Space Apps 2023 Global Finalist (Python)

- Sonification engine converting planetary data into piano music. Selected with Team Eklavya from thousands of international entries.

Lightweight SIEM Log Analyser (Python, Flask)

- Parses syslog, auth.log and web access logs; flags brute-force attempts and port scans in seconds, with MITRE ATT&CK alert mapping. Designed for small teams without a Splunk budget.

TECHNICAL SKILLS

Data Engineering: SQL, AWS Redshift, Snowflake, PostgreSQL, SQLite, Apache Airflow, ETL/ELT pipelines,

dimensional modelling, data warehousing

Machine Learning: Python, scikit-learn, PyTorch, XGBoost, SMOTE, Pandas, NumPy, Streamlit, anomaly detection, ensemble methods

Cloud and DevOps: AWS, Oracle Cloud Infrastructure, Cloudflare, Hugging Face, Docker, GitHub Actions, Linux, Git, CI/CD

Cybersecurity: MITRE ATT&CK, OWASP Top 10, NIST CSF, ISO 27001, SIEM, Suricata, Wireshark, incident response, threat intelligence, vulnerability assessment

Web and API: FastAPI, Flask, React, Astro, Node.js, Pydantic, Tailwind CSS, REST APIs

Languages: Python, SQL, TypeScript, JavaScript, Bash, C, Java, PHP, HTML, CSS

EDUCATION

Master of Information and Communications Technology, University of the Sunshine Coast, Adelaide Campus

July 2025 to August 2027. Focus: data systems, software engineering, cybersecurity research.

Bachelor of Computer Applications, CHARUSAT (CMPICA), India

Class Representative, recognised for academic leadership.

CERTIFICATIONS

- AWS Certified Data Engineer Associate (2026)
- Oracle Cloud Infrastructure 2025 Certified Data Science Professional (Aug 2025)
- NASA Space Apps Galactic Problem Solver (Oct 2023)
- Backend Web Development: Express and Node.js, DevTown, GDSC KIIT, AWS Community Builders (Jan 2023)
- TCS iON Career Edge: Young Professional (Sept 2023)

AWARDS AND RECOGNITION

- NASA Space Apps Challenge Global Finalist 2023: selected with Team Eklavya from thousands of international entries for the AstroSonify planetary-data sonification project.
- ASUS Republic of Gamers Showdown: three consecutive 2v2 podium finishes (2nd, 2nd, 3rd) in the competitive series at The Sports Club.
- Class Representative, Charotar University of Science and Technology: recognised for academic leadership during undergraduate studies.

AVAILABILITY

- Available for graduate and junior roles from July 2027, full working rights.

LANGUAGES

English (fluent, business), Hindi (native).