MEGHA RADHAKRISHNAN SANITHA

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SUMMARY

Data Scientist specializing in translating business problems into technical solutions across climate tech, healthcare AI, and conservation analytics. Proven ability to evaluate AI platforms, build end-to-end geospatial pipelines, and deliver scientifically validated insights. Strong track record of balancing technical rigor with practical business constraints.

SKILLS

- **Problem Assessment & Solution Design:** Requirements analysis, AI platform evaluation, workflow mapping, strategic consulting
- **Technical Implementation**: Python (pandas, NumPy, scikit-learn, TensorFlow), R, SQL, geospatial analysis (PostGIS, OpenDroneMap, QGIS)
- **Data Engineering & Visualization**: ETL pipelines, AWS (S3, EC2), Docker, Tableau, Power BI, Streamlit
- **Scientific Validation & Communication**: Domain expertise integration, stakeholder communication, technical documentation

PROFESSIONAL EXPERIENCE

AI Implementation Consultant (Micro-Placement) *Oct 2025 - Present*

Proactive Seniors Ltd. - Industry Project (Fall 2025)

- Evaluated AI platforms for elder care business requiring secure, compliant automation for report generation
- Developed systematic evaluation framework balancing security requirements, ease of use, and cost constraints
- Delivered actionable platform recommendation with implementation roadmap, translating technical capabilities into business value for non-technical stakeholders

Data Science Intern *Sep 2025 - Dec 2025*

Teal Climate

- Built and validated geospatial machine learning pipelines for carbon stock assessment in nature-based ecosystems, ensuring scientific accuracy through domain literature validation
- Developed automated preprocessing workflows for drone and satellite imagery using OpenDroneMap and super-resolution techniques, reducing manual processing time by 40%
- Caught critical calculation errors through dimensional analysis and scientific validation, demonstrating that computational correctness requires domain expertise
- Created reproducible technical documentation enabling knowledge transfer and quality control procedures for environmental monitoring projects

PROJECTS

Spatial Mapping of Endangered Mammals *Aug 2025*

- Designed PostGIS-enabled database with spatial indexes for optimized geospatial queries on IUCN and habitat data
- Deployed interactive web application on AWS (EC2/S3) using Streamlit and Folium, enabling dynamic species filtering for conservation planning

Predictive Modeling of Gas Leak Severity - Alberta Oil & Gas Wells *Jun 2025*

- Built and compared multiple classification models on 39,000+ well records, identifying upstream predictors to prioritize high-risk wells
- Improved resource allocation efficiency through data-driven risk assessment, demonstrating practical impact of predictive analytics

311 Service Requests Data Analysis *Jan 2025*

- Analyzed 1+ million service request records using SQL and Python, creating Power BI dashboards visualizing call-volume trends
- Automated weekly metric pipelines to support data-driven service allocation decisions for city operations

Banff NDVI Carbon Analysis *Jul 2025*

- Automated Python pipeline processing Sentinel-2 satellite imagery to compute NDVI and estimate CO_2 sequestration capacity
- Visualized forest health zones and carbon credit potential, enabling environmental monitoring at scale

EDUCATION

Master of Data Science and Analytics *Jan 2025 – Jan 2026*

University of Calgary (GPA: 3.85)

Bachelor of Computer Applications *Aug 2020 – July 2023*

Amrita Vishwa Vidyapeetham

CERTIFICATIONS

- Oracle Cloud Infrastructure AI Foundations (2023)
- Google Analytics (2025)