MELISSA ANTHONY
Senior Data Analyst

Nice, France | +33 07 49 59 14 55 | decca10.melissa@gmail.com | LinkedIn | Project Portfolio

Data Analysis and Visualisation | GIS Analysis | Spatial Reasoning | Data Science

Senior Data Analyst who combines over two decades of advanced leadership, technical and data analytical expertise with commercial acumen to provide actionable insights that unlock opportunities, optimise operations, and drive measurable business outcomes. Delivers beyond people and company-centred insights; drives product and organisational innovation that transforms operations and strategy, leveraging data to fuel growth and create sustainable competitive advantage. Understands human behaviour using a unique anthropological background.

- **Empowers leaders to make informed decisions.** Captures behaviour patterns and performs intricate data analysis to create interactive dashboards and advanced visualisation techniques in Power BI and Python.
- **Solves complex problems, maximises resource distribution and saves costs.** Delivers major GIS and data projects using tools, such as ESRI ArcGIS, QGIS, SAC and SaS, in collaboration with cross-functional stakeholders.
- **Upskills talent in optimal data analysis, GIS and data science practices.** Coaches and mentors individuals on a broad range of topics such as decision tree models, geospatial analysis, Python modelling and dashboards.

Career Snapshot

Bootcamp GIS | GIS Data Science Instructor, Denver (Remote) 2020 – Present

An online certificate programme focused on enterprise-level geographic information systems (GIS), offering hands-on courses taught by industry experts to build marketable skills and real-world geospatial portfolios.

Approached by owner to develop a full course based on own 'Help in a Snap' project, teaching students to extract valuable data insights from large datasets using Machine Learning (ML). Provided video instruction and walkthroughs, supported learners remotely, and conducted two 30-minute 1-2-1 Zoom sessions with each student.

- **Upskilled 16 students with industry-ready skills** in Python, decision tree modelling and correlation analysis, enabling them to extract actionable insights from complex government datasets.
- **Enabled students to visualise and share findings effectively.** Built practical geospatial expertise, taught QGIS applications and guided creation of JSON-based dashboards.
- **Boosted learner preparedness for data science careers.** Generated a comprehensive curriculum that integrated machine learning, GIS and data science techniques into real-world applied projects.

Xcel Energy | Quantitative Research Analyst, Denver 2020 – 2025

A major US electricity and natural gas utility company committed to delivering clean energy that serves approximately 3.9 million electricity customers and 2.2 million natural gas customers across eight Midwestern and Western states.

Appointed into Load Research Department, based on GIS expertise, to build new spatial products as part of a specialist team of five, and reported to Load Research Manager, with work becoming central to business strategy.

- **Raised GIS visibility company-wide,** as first point of contact for business insight and strategic mapping.
- **Increased sales forecasting accuracy and facilitated sales opportunity generation.** Created and maintained user-focused sales insight maps and acquired positive recognition from sales team.
- **Safeguarded compliant data handling and governance.** Collaborated with data scientists, GIS specialists and legal teams to introduce robust data sharing protocols and standardised reporting processes.
- **Uplifted forecasting model accuracy by 8%.** Spearheaded sophisticated analytics and performance tracking.
- **Realised $2M cost efficiency.** Crafted over ten advanced analytical dashboards using Power BI and custom Python visualisations, resulting in multiple company-wide excellence awards for innovative solutions.
  - Identified process blockages and data quality issues, using automated performance monitoring solutions.
- **Strengthened executive-level decision-making**. Originated a suite of reporting dashboards using Power BI and Python that incorporated performance metric tracking and trend analysis.

Notable Projects: (Others: [AMI Meter Rollout](#) and [EV Dashboard](#))

- ⬚ **Energy Burden Analysis: enabled Xcel to direct $2M in targeted assistance to 152,000 energy burdened customers out of 1.7 million in Colorado.** Led project to produce interactive dashboards and metrics.
- ⬚ [**Gridscape**](#)**: surpassed $3M vendor solution to prioritise critical and medium overloaded transformers**, receiving iDeliver Innovator Award. Provided load profile using real-time data and compared to capacity.
- ⬚ **FAN Map: resolved $10M+ in billing losses** from single interruptions to automated meter readings for large commercial customers, achieving iDeliver Innovator Award. Visualised via ArcGIS Pro and ArcGIS Online.

Cinefuse | Data Scientist (Part-time), Denver   2020

Based in Colorado, Cinefuse is a web platform for movie fans to vote on, discuss and discover new films.

Offered data analytics consulting services to a small tech startup located in Denver as part of growth strategy.

- ⬚ **Boosted projected user base to 200,000 and increased interaction by 125%.** Formulated Python, AWS, SQL and machine learning models that optimised acquisition and engagement strategies.
- ⬚ **Transformed database efficiency and hastened data retrieval.** Restructured SQL Server database comprising 5,000 movies with 20+ attributes, applying data normalisation, and improved design.

Planned Career Break   2018 – 2020

CORE Electric (formerly IREA) | GIS Supervisor, Sedalia   2007– 2018

Member-owned, not-for-profit electricity utility company headquartered in Sedalia, Colorado, which serves 375,000 residents covering almost 5,000 square miles and 11 counties. The cooperative returned $9M in capital credits to its members in 2021.

Joined initially as GIS Technician and rapidly advanced to GIS Supervisor, reporting to GIS Manager. Tasked with supporting digital transformation from AutoCAD and paper maps to a new Oracle database and ArcGIS solution.

- ⬚ **Contributed to organisation-wide system transition.** Played an active role in database structure design, adopting Agile approach in conjunction with IT and vendor. Pivotal to bolting new design into ArcGIS solution.
- ⬚ **Eradicated common problems.** Worked closely with GIS Director to shape innovative solutions, including design product for engineers and Internet of Things (IoT) / coding propositions.
- ⬚ **Lowered fire risk and raised system safety.** Utilised LIDAR technology to design tree trimming project.
- ⬚ **Expanded data scope.** Negotiated data exchange agreements with government officials.
- ⬚ **Backed greater electricity reliability.** Outlined influential maps to support new substation approvals.

Earlier Career Highlights

SWCA, Seasonal Archaeologist, Northwest Colorado   2006

- ⬚ **Achieved record-breaking archaeological finds.** Drove excavation and survey projects for infrastructure works (CDOT highway, Rangely pipeline, Reuter–Hess). Created GIS maps, GPS records and lab analyses.

Centennial Archaeology, Field Archaeologist, Colorado   2004 – 2006

- ⬚ **Surveyed gas pipelines and seismic lines.** Maintained GIS databases and catalogued artefacts with GPS equipment. Interpreted legal address documents to ensure accurate records and compliance.

New Mexico State University, Field Archaeologist, Colorado   2004

- ⬚ **Excavated and surveyed Pinyon Canyon area,** using GPS, field paperwork and field specimen data.

KEY SKILLS

Data Analysis and Insights / Data Science / GIS Analysis / Leadership / Project Management /

Business Operations Management / Risk Management / Complex Problem-solving / Stakeholder Engagement /

Data-driven Solution Development / Innovation / Operational Excellence / Effective Communication /

Data Governance / Data Visualisation / Data Mining / Collaboration / Technical Writing / Agile

Data Strategy / Asset Management / Presentation / Change Management / Data Architecture

Classification Models / Regression Models / Supervised Models / Unsupervised Models / Data Mining

PROFESSIONAL QUALIFICATIONS

Certificate in Data Science, General Assembly, 2020
Master's Certificate in GIS, University of Denver, 2008
Bachelor of Arts in Anthropology and Geography, University of Colorado, 2004

TECHNICAL SKILLS

Machine Learning / Natural Language Processing / Python / SQL / Relational Databases (RDBMS) / Power BI
Tableau / Cloud Platforms / CIS / SCADA Data Systems / AutoCAD / ESRI / ArcGIS / Cursor AI
TensorFlow / Big Data / NLP / Keras / Databricks / SAP / R

ADDITIONAL INFORMATION

Events: Boulder Data Science, Machine Learning and AI | Boulder Women in Machine Learning and Data Science