

Melissa McMillan

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I am a Personal Growth Mentor whose passion is helping others think more deeply about their lives to find creative solutions to life's problems.

Project Management and Leadership

Data Science Alumni Mentor with General Assembly	September 2022 - Present
Project Management Professional (PMP) Certification: License #1956892	October 2016 - Present
Lean Six Sigma Yellow Belt Certification	December 2018 - Present
EnergyTechHub Board Member	November 2019 - Present

Professional Experience

Vice President- <i>Part Time</i>	April 2023 - Present
Institute for Life & Care, An Education Not-for-Profit Organization	Denver, CO

- Head of business development and strategic vision to bring educational products to new market, develop new corporate sponsors, association alliances, and education partners
- Developing skills in positive psychology and mentoring in pursuit of ICF Associate Certified Coach Credential

Owner	October 2022 - Present
Liquid Gold Analytics, LLC	Denver, CO

- Teaching Associate at General Assembly for 10-week Python Programming course in Summer of 2023

Director, Customer Success Analyst/Energy Analyst Team & Process Integration	July 2021 - October 2022
cQuant.io, Energy Analytics B2B SaaS Platform	Remote/Louisville, CO

- Led a team of junior Data Analysts who provided front-line client support for software implementation/adoption tasks
- Developed an onboarding process for the new hires on my team that was then leveraged on a neighboring team
- Developed, introduced, and mentored Energy Analysts through a Project Management Best-Practices Process that helped them level up their technical contribution to better deliver company product to clients
- Developed a company-first custom PowerBI dashboard for full-scale Risk Analysis of a client's portfolio
- Established an end-to-end ticketing process through utilization of Zendesk, allowing for customer analytics
- Designed and implemented a company-first Customer Analytics Process and PowerBI dashboard using the Zendesk API that provided weekly reports on client interactions and analyst support using appropriately identified KPI's
- Used R to debug and improve model code, wrangle client data, and understand model results
- Trained clients on statistical models, such as spot price simulation models, battery and power plant dispatch optimization models, and summary aggregation models
- Optimized implementation process for new clients through utilization of project management techniques, reducing project timeline and increasing client satisfaction
- Identified opportunities to increase product revenue through understanding client use-cases
- Collaborated with Software/Application Development, Analytics, Sales/Marketing, and Quantitative Development Teams to deliver strategic project initiatives
- Developed a company-first Resource Allocation Process that enabled distribution of appropriate people resources to client projects based on volume and timing of sales pipeline

Data Science Immersive Student	December 2020 - March 2021
General Assembly	Denver, CO

- Retooled myself to transition to the field of Data Science
- Followed machine learning curriculum and built supervised and unsupervised machine learning models
- Worked on a team of four other data scientists on a project to diagnose COVID-19 lung infection in x-rays
- Was challenged to create five projects using various machine learning models in a time-limited manner

Eagle Ford Shale Play Asset Geophysicist	March 2019 - October 2020
BP/BPX Energy	Denver, CO

- Technical Contributor responsible for providing data-driven insight to reduce well deliverability risk for a 4-6 rig drilling program
- Assisted Asset VP in Process Improvement efforts for Eagle Ford BU to optimize team efficiency and Capital Planning Process, reducing software touch points and man-hours

- Advised multi-disciplinary team of geologists and engineers on the benefits and appropriate uses of 2D/3D seismic datasets for optimizing hydrocarbon production
- Delivered a data reprocessing and interpretation project worth ~\$100k that improved hydrocarbon valuation in an undeveloped play
- Led and executed an Induced Seismicity Monitoring Program in Karnes County, TX on time and 75% under budget
- Facilitated completion and organization of newly acquired 3D seismic data worth ~\$15million+

Project Coordinator February 2017 - March 2019
 ESG/Spectraseis Denver, CO

- Project Coordinator/Manager responsible for delivering 30+ awarded Passive/Induced Seismicity projects, ranging from \$10k-100k in value, following the company's Project Management Processes
- Executed on company's Project Management Process, based on the official PM Body of Knowledge (PMBOK)
- Responsible for project planning and execution, coordinating operational logistics, maintaining team connections, meeting technical and contractual obligations, risk mitigation, process integration and improvement, and client communication
- Integrated newly acquired business and service offering, Spectraseis, into parent company's (ESG) process
- Developed and adapted ESG's Project Management Process to fit Spectraseis' Seismicity service offering, increasing efficiency and profitability during BU integration

Geophysicist/ Geoscientist August 2012 - March 2016
 BP America, Inc Houston, TX

- Geoscientist/Geophysicist for the Deepwater Gulf of Mexico, Wyoming, Anadarko, and Arkoma BU's responsible for mapping the subsurface on both 2D/3D seismic data to assist teams in optimizing hydrocarbon production
- Led the successful acquisition and delivery of a new 3D seismic dataset worth ~\$20million to the Anadarko BU
- Led the Deepwater Gulf of Mexico team to drill a \$130million exploration well with operational partner Exxon
- Delivered Technical Seismic Fitness and Futures Report/Presentation with recommendations for past and future dataset potential for the Wyoming asset that provided foundation for identification of additional plays in the mature/legacy asset
- Led a team to conduct technical analysis and provide recommendation to management against participation in a competitor's \$200 million exploration well, successfully avoiding a (very expensive) dry hole
- Recommended for the Leadership Development Program in 2013; completed the Courageous Conversations and Effective Planning Courses as part of this program

Technical Skills

Skills: End-to-End Data Process: Wrangling/Cleaning, Modeling/Analysis, Reporting/Visualization, and Communication
Languages / Software: Python, SQL, R, PowerBI, Excel, Microsoft Office Suite, Zendesk, Slack

Data Science Projects

Forecasting Induced Seismicity in the Eagle Ford Shale Play

- Utilized the USGS and TexNet Seismicity Catalogs to understand earthquake occurrence and driving mechanisms
- Used RNN, ARIMA, and SARIMA models to forecast seismicity occurrence
- Found preliminary correlation between hydraulic fracture injection volume per foot lateral to induced seismicity

Trained Convolutional Neural Network (CNN) to Diagnose Presentation of COVID-19 and Viral Pneumonia in X-Rays

- Collaborated with three other data scientists to develop highly predictive model
- Utilized Kaggle Dataset of X-Ray images to train Keras CNN model
- CNN Model test accuracy: 95%, Recall score of 95%
- Created an end-user interface to interact with the trained model using Flask

Natural Language Processing Binary Classification for Game of Thrones vs Lord of the Rings Subreddits

- Used PushShift API to scrape r/GoT, r/LOTR subreddit posts
- Used Naïve Bayes and Random Forest models to create a Natural Language Processing Model
- RandomForest was the best model achieving 93% accuracy, 91% sensitivity using TF-IDF Vectorizer
- Visualized model statistics comparing TF-IDF vectorizer against CountVectorizer

Education

Data Science Immersive Advanced Certificate General Assembly	Grad year: 2021
Master of Science in Geoscience The University of Arizona	Grad year: 2012
Bachelor of Science in Geoscience, Minor in Mathematics The University of Arizona	Grad year: 2010