

Aiden V. Johnson

*Innovative AI/ML leader with 10+ years' experience
in climate, fintech, healthcare and defense sectors*

aiden.dataminer@gmail.com < 406-202-1470

www.linkedin.com/in/aiden-v-johnson < <http://github.com/AVJdataminer>

Summary

Innovative AI/ML leader with over 10 years of experience building scalable, cloud-native artificial intelligence and machine learning systems that create impact across fintech, healthcare, defense, and climate sectors. Skilled at designing end-to-end solutions, from data ingestion to model deployment—using tools like Gemini Flash API, OpenAI API, LangChain, AWS, Azure, Databricks, and advanced deep learning frameworks. Proven success in leading cross-functional teams, mentoring engineers, and converting complex data into actionable insights for Fortune 500 companies and start-ups. From optimizing financial forecasting models to deploying NASA-funded wildfire prediction systems, I focus on delivering intelligent products at scale and am extremely passionate about creating trustworthy, user-focused AI applications that enable better decision-making.

Key Achievements

- **Authored Winning Grant**
Secured \$1.5 million in NASA grant funding.
- **Successful Project Leadership**
Led technical development team to deploy 5+ AI applications.
- **Optimized Cloud Resources**
Reduced AWS costs by 33% through efficient cloud architecture.
- **Research Publication Success**
Published 3 papers on AI-driven geospatial analysis and multiple Medium articles on the data science method.

Technical Skills & Certifications

- AI & Machine Learning (Supervised and Unsupervised Classification, Deep Learning, Natural Language Processing, Computer Vision, Clustering, Dimension Reduction, Multi-variate optimization, anomaly detection, LLMs and GenAI)
- Cloud Computing (AWS, Azure, GCP, Databricks)
- Frameworks and Services (Pytorch, Tensorflow, OpenCV, OpenMapper, YOLO, LangChain, Gemini Flash API, OpenAI API)
- Programming (Python, SQL, R)
- Geospatial Analysis (Biophysical Earth System modeling, Satellite Image, LiDAR, GIS)
- Multi-source data fusion (Satellite + In-Situ multi-source sensor data)
- Neural Networks and Deep Learning Certification (Coursera)

Professional Experience

Space-Eyes

Chief Technology Officer

1/2022 to Present

- Lead all technical aspects of multi-source, multi-sensor AI/ML software application development.
- Author and Principal investigator for the NASA Ignite Grant *Fire Watch: Prediction and Detection of Wildfires through Advanced AI/ML* (Phase 1 & Phase 2 funding).

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- Developed Gemini Flash 2.5 LLM integration with geospatial wildfire model for AI informed model development.
- Mentor and manage technical teams, engage with customers, manage vendors, and represent the company at industry conferences.

Merck Research Laboratories

AWS Cloud Solutions Architect / Data Scientist

10/2020 to 1/2022

- Provided end-to-end cloud AI/ML and data delivery systems, supporting laboratory drug development research in AWS.
- Developed machine learning models for scientific projects such as excipient testing, NMR Spectroscopy, and OCR.
- Built dashboards in Spotfire, ThoughtSpot, and AWS Quicksight.
- Refactored Machine Learning scripts and processing to Databricks.
- Performed Exploratory Data Analysis using Principal Component Analysis (PCA), Cross-Factor Correlation Analysis, Clustering, Interaction and Joint Distribution Analysis.
- Mentored aspiring and current technical professionals.

Breakthrough Data Science

Data Science Consultant

4/2019 to 10/2020

- Provided end-to-end cloud AI/ML and delivery systems in AWS.
- Provided technology and data project scoping and feasibility advice.
- Design, train, and deploy AI/ML models.
- Designed and developed data science and machine learning curriculum tailored for industry needs.
- Created instructional content, exercises, and real-world case studies to enhance student learning.
- Provided mentorship and guidance to learners transitioning into data science careers.

Blue Orange Digital

Data Scientist

9/2018 to 4/2019

- Developed state-of-the-art data matching machine learning algorithms in support of a hedge fund manager hiring application. Leveraged natural language processing and unique data vectorizations for model improvements.
- Multiple high-volume data source aggregation and deduplication, disparate sources data matching.
- Provided technical proposal writing and project documentation.
- Worked on Spark distributed systems on AWS.

CVS Health

Data Scientist – Machine Learning Team

1/2018 to 8/2018

- Built ML models for Minute Clinic scheduling optimization.

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- Led project planning, development, and cross-organizational collaboration.
- Transitioned model data to Hadoop, increasing efficiency and reducing model run times.

Lincoln Financial Group

Data Scientist

12/2016 to 1/2018

- Developed and implemented ML algorithms for data-driven cross-sell and customer retention.
- Led the initiation of AWS EC2 computing capabilities for the data science team.
- Developed one of the first NLP models for customer service call transcripts.

Montana Department of Revenue

Statistical Modeler

8/2014 to 9/2016

- Built multivariate regression models for mass real property appraisal.
- Conducted economic market trend analyses, spatial correlation, and data segmentation using SAS and R.
- Developed and presented effective data visualizations, reports, and presentations.

Montana State University

Research Assistant & Teaching Assistant

6/2011 to 8/2014

- Conducted machine learning research on geospatial data using Random Forests and Monte Carlo simulations.
- Led coursework in environmental biophysics, remote sensing, soils, and watershed hydrology.

The University of Montana-Western

Instructor – Geographic Information Systems Seminar

9/2013 to 12/2013

- Developed and designed all course materials, lecture presentations, lab exercises, and assignments.
- Managed online course materials and grading systems.

Red Castle Resources

Remote Sensing Data Scientist

5/2010 to 5/2011

- Developed machine learning image classification models for 25 years of Landsat data.
- Trained USDA Forest Service employees on geospatial analysis and remote sensing methods.
- Researched and published a manual for carbon stock accounting via remote sensing methods.

U.S. Army

Healthcare Non-Commissioned Officer

7/2002 to 7/2010

- Supervised junior soldiers and civilian employees.
- Provided patient care in diverse medical settings.

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U.S. Forest Service

Remote Sensing Data Scientist

7/2007 to 5/2010

- Processed remotely sensed imagery for use in a major vegetation-mapping project in ArcGIS, ArcInfo, and Erdas Imagine.
- Built automated processing models and wrote ArcInfo code for data processing. Addressed and resolved problems with data acquisition, processing techniques and product accuracy.
- Classified remote sensing data using Random Forests in R, object oriented unsupervised classification in eCognition, and k-NN supervised classification in R.
- Completed a comparative analysis of classification techniques accuracy in classifying land class and forest species data using python and ArcGIS.
- Addressed and resolved problems with data acquisition, processing techniques and product accuracy.
- Developed a spatial model for Helipad potential landing sites.

Volunteering

Financial Services Volunteer Corps

Data Science Consultant

6/2019 (Short-term engagement; Tunis, Tunisia)

- Delivered workshops on leveraging open-source satellite data for natural resource management.
- Led training on monitoring forest fires, droughts, and floods with publicly available satellite imagery in R and Python.

Education

Montana State University-Bozeman

M.S. Statistics & Environmental Science

- Thesis: *Scaling and Uncertainty in Landsat Remote Sensing of Biophysical Attributes*
- GPA: 3.8

The University of Montana

B.S. Forest Resources Management & GIS

Publications

Selected Publications

- *Scaling and Uncertainty in Landsat Remote Sensing of Biophysical Attributes*
- *The Impacts of Mountain Pine Beetle Disturbance on the Energy Balance of Snow During Melt Period*
- *Forest Carbon Monitoring: A Review of Selected Remote Sensing and Carbon Measurement Tools for REDD+*

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Technical Review Contributions

- Technical Reviewer for *Advancing into Analytics: From Excel to Python and R* by George Mount (O'Reilly, 2021)

Data Science Curriculum Development

Curriculum Developer & Instructor

Various Companies: Plural Site, Thinkful (Chegg), SpringBoard, Data Quest, MasterSchool

- Designed and developed data science and machine learning curriculum tailored for industry needs.
- Created instructional content, exercises, and real-world case studies to enhance student learning.
- Provided mentorship and guidance to learners transitioning into data science careers.

Interests

Hiking, traveling, mountain biking, skiing, environmental health, medical innovation, education, technology, and personal development.