

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>

Dear Pano AI Team,

As an AI/ML leader with over a decade of experience delivering impactful, scalable artificial intelligence systems, I am excited by the opportunity to help Pano AI advance its mission of protecting communities through faster wildfire detection. Having led the technical development of NASA-funded wildfire prediction systems and directed teams building end-to-end AI products, I am well-positioned to lead your AI / Perception team in developing and refining computer vision-based fire detection and localization systems.

At Space-Eyes, I served as Chief Technology Officer and Principal Investigator for a NASA Ignite Grant, developing advanced AI/ML models for wildfire prediction using multi-source geospatial data. I led cross-functional teams in designing and deploying AI systems that integrated advanced computer vision, deep learning, and remote sensing to identify wildfire risks, demonstrating my ability to translate complex R&D into operational, user-focused products. My experience in selecting and driving applied research projects, combined with my hands-on development using frameworks such as PyTorch and TensorFlow, aligns closely with Pano AI's vision of improving detection accuracy and speed across challenging conditions.

Throughout my career, I have valued clear performance metrics, continuous model validation, and close collaboration with product and operations teams to ensure that AI models deliver actionable intelligence to end-users. I am eager to apply this approach at Pano AI, ensuring your detection and localization pipelines remain state-of-the-art while reliably supporting the needs of first responders. Additionally, my background in authoring technical publications and grant proposals can support Pano's industry leadership and thought leadership efforts as you expand.

Pano AI's mission resonates deeply with my commitment to using AI for climate resilience and public safety, and I am energized by the opportunity to contribute to a company recognized as a leader in climate tech and AI innovation. I look forward to the possibility of discussing how my experience can help drive Pano AI's continued success in providing life-saving wildfire intelligence.

Thank you for your consideration.

Warm regards,



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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.