


Jordan Y. Aljbour

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Multidisciplinary data and computational science professional with advanced expertise in data modeling, analytics, and high-performance computing. Demonstrated success transforming complex datasets into meaningful insights for executive, technical, and public-sector stakeholders. Experienced in applied forecasting, scenario modeling, and statistical analysis across environmental, energy, and AI-related research. Adept at designing end-to-end workflows, integrating large-scale geospatial and temporal data, and building reproducible, scalable tools that support impactful decision-making.

Experience

Senior Python Developer

ICF | Portland, OR USA | 2025-2026

- ◆ Develop data-driven analytic tools and decision-support platforms using Python and cloud infrastructure to support energy and climate research initiatives.
- ◆ Conduct scenario, sensitivity, and uncertainty analysis using stochastic modeling frameworks (Monte Carlo, bootstrap) for energy and emissions forecasting applications.
- ◆ Design and evaluate program performance metrics, optimizing computational workflows to improve analytical scalability and reproducibility.
- ◆ Analyze trends shaping energy systems and grid infrastructure through large-scale data processing and time-series modeling across distributed computing environments.
- ◆ Contribute to stakeholder engagement and strategic communications, translating complex technical findings into clear reports and presentations.

Engineer/Scientist I

Electric Power Research Institute (EPRI) | Portland, OR USA | 2023-2025

- ◆ Analyzed trends shaping U.S. energy security and grid modernization, including AI/data center electricity demand, long-duration energy storage, and grid cybersecurity.
- ◆ Supported technology-to-market strategy and commercialization pathways for emerging energy technologies through technical publications and utility stakeholder engagement.
- ◆ Designed and evaluated federal energy program portfolios, conducting economic and performance analysis to inform utility investment decisions.
- ◆ Developed data-driven dashboards and analytic tools (Tableau, Power BI) to support decision-making and strategic communications for utility and public-sector partners.
- ◆ Led technical publications and public-facing reports on emerging technologies, contributing thought leadership on power sector infrastructure and industrial electricity demand.

Associate Researcher

Center for Climate and Aerosol Research (C.C.A.R) | Portland, OR USA | 2020-2023

- ◆ Conducted scenario, sensitivity, and uncertainty analysis for climate-energy systems, applying economic modeling and techno-economic methods to GHG mitigation pathways.
- ◆ Supported federal R&D programs (NSF, NASA), contributing to research on energy infrastructure, emissions reduction, and environmental systems modeling.
- ◆ Developed decision-support tools and interactive dashboards (Python, R Shiny) to inform policy and investment decisions on climate and energy initiatives.
- ◆ Led stakeholder engagement, workshops, and strategic communications, presenting research findings to federal program officers and academic partners.
- ◆ Authored technical publications on methane emissions and biogas energy systems, demonstrating thought leadership on emerging energy and environmental technologies.

Education

Bachelor of Science: Applied Environmental Physics with Honors

Dual-Minor(s): Geographic Information Systems (GIS) & Mathematics

Portland State University | Portland, OR USA | 2017-2022

Certifications

- ◆ Certified Energy Manager (CEM) | Association of Energy Engineers (AEE) | In Progress/Planned 2026
- ◆ Certified Sustainable Development Professional (CSDP) | Association of Energy Engineers (AEE) | In Progress/Planned 2026
- ◆ IBM Data Science Professional Certificate | IBM | 2025
- ◆ Google Advanced Data Analytics Professional Certificate | Google | 2024
- ◆ GHG Protocol Scope 2 & 3 Certificate(s) of Completion | World Resources Institute | 2023
- ◆ GHG Accounting Certificate | Corporate Finance Institute | 2023

Awards

- ◆ NASA Pathways Intern | 2021-2024
- ◆ N.S.F Division of Atmospheric and Geospace Sciences: Grant 1950702 | 2021-2023
- ◆ President's Equal Access Scholarship (P.E.A.S) | 2018-2022
- ◆ P.S.U Honors College Academic Achievement Award | 2021-2022
- ◆ P.S.U Honors College Thesis Achievement Award | 2021-2022
- ◆ Vernier STEM Scholarship | 2018-2022

Skills

Program(s):

- ◆ *Adobe:* Creative Cloud Suite
- ◆ *BI:* Tableau | Power BI | SAS
- ◆ *CAD:* AutoCAD | Blender | LTspice | Revit
- ◆ *CL:* Bash | Unix | CMD
- ◆ *EM:* AERMOD | ENVI | GEOS-Chem GCHP | HEMCO | WRF
- ◆ *GIS:* ArcGIS Pro | QGIS | ArcGlobe/Map
- ◆ *HPC & Cloud:* SSH | S3 | Dask | Docker | AWS | Azure | Snowflake
- ◆ *OS:* Microsoft | OSX | Linux
- ◆ *PL:* Python | SQL | R | MATLAB | C/C++ | FORTRAN | Scala | Javascript | VBA

Technical:

- ◆ *Computational Programming:* Algorithmic/Big-data Modeling | Cloud Computing | Parallel & Distributed Computing | API Development
- ◆ *Data Engineering:* Ingestion | Cleaning | Integration | Modeling | Analysis | Visualization | Pipeline
- ◆ *Geospatial Analytics:* CAD Raster/Vector Processing | Reprojecting (xESMF) | ARCO/Zarr Data Standards
- ◆ *Statistical Modeling:* Monte Carlo Sampling | Uncertainty Quantification | Time-Series Forecasting
- ◆ *Instrumentation & Technical Systems:* Optical Measurement | LTspice Simulation | Precision Calibration | System Diagnostics/Troubleshooting
- ◆ *Reproducible Research & DevOps:* Environment Management | Containerization | Workflow Automation
- ◆ *Project Management:* Version Control (Git/Jira) | Cross-Functional Collaboration | QA/QC Validation/Documentation

Interpersonal:

- ◆ Adapts quickly to shifting priorities and technical demands
- ◆ Communicates complex ideas clearly across diverse stakeholder groups
- ◆ Demonstrates consistent reliability under high-pressure deadlines
- ◆ Leads cross-functional collaborations with focus and empathy
- ◆ Innovates through data-driven problem solving and experimentation
- ◆ Encourages teamwork and knowledge sharing across distributed teams
- ◆ Learns rapidly and applies emerging tools with initiative
- ◆ Balances independent execution with collaborative project integration
- ◆ Prioritizes precision, clarity, and accountability in every deliverable

Publications

- ◆ Aljbour, J. & Jagdale, A. 2024. EPRI Quick Insight - Data Center Heat Reuse. Electric Power Research Institute, December 2024 (3002031316).
- ◆ Aljbour, J. & Patel, P. 2024. Technology Radar Pulse Report. Electric Power Research Institute, October 2024 (3002031179).
- ◆ Aljbour, J., Wilson, T., and Patel, P. 2024. Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption. Electric Power Research Institute, May 2024 (3002028905).
- ◆ Aljbour, J. & Viji, P. 2024. Long-Duration Energy Storage: Emerging Pilot Project Summaries. Electric Power Research Institute, March 2024 (3002029144).
- ◆ Aljbour, J. 2024. Navigating EPRI's Technology Radar: User Navigation Manual. Electric Power Research Institute, March 2024 (3002029524).
- ◆ Aljbour, J. & Neary, B. 2023. Program on Technology Innovation: EPRI Insights, Navigating Cyber Security in Energy Grids - A Roadmap for Resilience and Innovation. Electric Power Research Institute, October 2023 (3002028129).
- ◆ Aljbour, J. 2023. Power Consumption Trends from Increased AI and Data Center Utilization. Electric Power Research Institute, August 2023 (3002027934).
- ◆ Aljbour, Jordan-Yoosuf, "Understanding CH4 Emissions from Compostables: An Exploration of Local CH4 Emissions from Landfilled Compostables and the Efficacy of Emission Mitigation via Anaerobic Biogas Digestion" (2022). University Honors Theses. Paper 1247.
- ◆ Aljbour, Jordan-Yoosuf, "GIS Analysis of Greenhouse Gas Emissions in Portland, OR" (2021). Center for Climate and Aerosol Research, Report 378.