

Lazouich Ford

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Senior Software Engineer | Cloud Infrastructure | Python & Geospatial Data Specialist

Software Engineer with a strong foundation in physics and proven experience building innovative solutions to complex problems. Experienced across the full software development lifecycle, including requirements gathering, architecture design, deployment, and maintenance. Proficient in Python, SQL, and cloud technologies (AWS, FastAPI, Pulumi), with a demonstrated ability to automate tasks, troubleshoot, and deliver actionable insights. Recent PyCon US speaker demonstrating knowledge of geospatial data, PostGIS, and the willingness to teach others.

Career Experience

RedZone, Boulder, CO

Senior Software Engineer ← Data Manager ← Data Analyst

2021 – Present

- **Modernized System Architecture:** Helped migrate a legacy monolith into microservices using FastAPI, enabling more maintainable and scalable systems with clean API contracts.
- **Cloud Infrastructure Automation:** Built and deployed AWS infrastructure components using Pulumi. Designed microservices to handle event-driven data ingestion and analytics processing via AWS Fargate.
- **Defined Technical Requirements:** Created Software Requirement Specifications and proposed scalable architectural designs to meet evolving product needs and stakeholder expectations.
- **Enhanced Wildfire Risk Modeling:** Collaborated on extending an internal wildfire risk model by leveraging Pandas and Plotly to quickly test, visualize, and suggest different approaches to tune algorithms.
- **Enhanced Data Reliability:** Resolved data quality issues across internal and vendor datasets using Python, SQL, and QGIS. Automated data correction processes to reduce manual overhead.
- **Geospatial Data Analysis & Visualization:** Leveraged tools like QGIS, Shapely, and PostGIS to visualize and communicate spatial datasets for internal use and customer deliverables.
- **Business-Driven Reporting:** Produced ad hoc reports using SQL and Python for internal stakeholders and external clients, enabling data-informed decisions and operational improvements.
- **Customer Enablement & Support:** Guided customer onboarding by providing technical walkthroughs, clarifying data expectations, and supporting integration with RedZone's systems.
- **Conference Speaker:** PyCon 2024 (Pittsburgh, PA) - *Geospatial Validations Using FastAPI and PostGIS*. PyOhio 2025 (Cleveland, OH) – *Wildfires!*

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Page | 2

Executor (Volunteer), Black Python Devs – North America

2024 – 2025

- **Modernized Community Infrastructure:** Co-led a conference sprint for the migration of the organization's website from Ruby to Python, increasing maintainability and reducing technical onboarding barriers for contributors.
- **Community Growth & Engagement:** Represented Black Python Devs at conferences, built relationships with regional organizers, and helped grow chapter visibility and participation.
- **Governance & Operations:** Managed budget, approvals, and policy development to support inclusive, transparent community leadership and operations.

Education

Master of Science in Physics

University of Washington, Seattle, WA

Bachelor of Science in Physics

University of California Irvine, Irvine, CA

Skills

Languages/Frameworks: Python, SQL, FastAPI

Cloud & Infrastructure: AWS (S3, RDS, SQS, etc.), Pulumi, Boto3

Data: Pandas, Plotly, PostGIS, QGIS, Shapely

Tools & DevOps: Docker, Git, Github Actions, DataDog, Jira, Auth0