



Title: Software Engineer (Geospatial Data Engineer)

Company Name: Vibrant Planet

Contact: Michael Callahan, michael.callahan@vibrantplanet.net

Location: Remote. US (Pacific/Mountain)

About Vibrant Planet

We are a team of leaders in science, forestry, policy, and tech, building a cloud-based, data-driven platform to increase the pace and scale of forest restoration and reduce catastrophic wildfire, tree mortality, forest degradation, and deforestation. Our current software modernizes land management planning and monitoring with AI-driven data development, user friendly scenario building and decision support, and forest resilience trends and treatment outcome detection. The system quantifies potential and actual treatment benefits, helping to grow markets for ecosystem services (carbon, water, biodiversity, sustainable forest-derived products).

Our initial platform (launched in September 2021) is focused on temperate, “fire adapted” landscapes in California and the Western US. Our mission is global; our roadmap expands into other geographies and forest types accordingly.

Driven by our sense of urgency to protect vital forests and the services they provide, we use our expertise to build sophisticated, AI/ML-driven, user friendly products to democratize the use of data and accelerate the process of stabilizing and restoring our forests.

Vibrant Planet is backed by climate and ecosystem resilience solutions leaders, including Grantham Foundation, Earthshot, Elemental Excelsior, Ecosystem Integrity Fund, Chris Cox (CPO at FB), Neil Hunt (Former CPO of Netflix), Cisco, Valia Ventures, and Halogen Ventures.

About Pyrologix

We are a small team of analysts, scientists, and engineers working to understand the spatial and temporal characteristics of wildfire hazard and risk – and the factors that influence them – across the nation and, eventually, the globe. Pyrologix is a subsidiary of Vibrant Planet. For further information, please visit: pyrologix.com

Equal Opportunity Employer

Vibrant Planet is committed to diversity. We encourage applicants from all cultures, races, colors, religions, sexes, national or regional origins, ages, disability status, sexual orientation, gender identity, military, or other status protected by law to apply.

We are most interested in finding the best candidate for the job. The candidate may come from a less traditional background but have capacity to grow into and thrive in the position after some mentoring. We do not require that you have experience with every job description task. We will consider any equivalent combination of knowledge, skills, education, and experience to meet minimum qualifications. We encourage each candidate to think broadly about their unique background and skill set and how it may relate to the role. This is important to us. We are not just building a business; we are cultivating a community that thrives on the strength of its differences.

For further information, please visit: <https://vibrantplanet.net>

About the Role

We are seeking a versatile, hands-on, experienced software engineer to help us scale and build our geospatial pipelines and tooling.

This role will primarily support the core wildfire offerings of Vibrant Planet with opportunities to collaborate across the engineering organization. In this role, you will be at the heart of our data operations, taking ownership of critical systems that transform raw fuel, weather and topography inputs into data products that allow clients at a local, state and federal level to make decisions based on wildfire hazard and risk data.

As a startup, we are building an engineering culture that is collaborative, innovative, and reflective of the individuals who compose it. We are looking for someone who thrives in a dynamic environment and is excited to work with the team to define best practices, solve complex challenges, and shape the future of our technology.

This is a remote role, so working comfortably and effectively in a distributed team is crucial.

Key Responsibilities

Design, develop, scale geospatial data systems, infrastructure, and web applications.

- Design, build, and maintain scalable and reliable data pipelines for processing large volumes of geospatial data related to wildfire and fuel modeling.
- Build, maintain, and troubleshoot the cloud infrastructure hosting the orchestration and compute environments for data pipelines.

- Develop and enhance web-based front-end applications, including data processing dashboards and interactive maps for our analysts and clients.
- Implement data quality checks to ensure high-quality and complete data is delivered to our clients.
- Collaborate with engineers, scientists, and other stakeholders to share knowledge and build expertise.
- Lead and participate in development life cycle activities like design, coding, testing, and production release.
- Contribute to our evolving engineering culture, standards, tooling, and processes.
- Mentor and support other engineers and deeply review code.

Technical Qualifications

- 5+ years of software engineering experience
- 2+ years experience in geospatial data engineering or a related field
 - Writing code to process Raster and/or Vector Data
 - Experience with some of the following: GeoPandas, Rasterio, GDAL, Postgres/PostGIS, Shapely, Xarray, Zarr.
- Strong proficiency with Python. Ability to write clean, high-quality code and tests to keep our system fast, reliable, and monitorable.
- Experience with major cloud infrastructure providers such as AWS, GCP, etc.
- Experience with orchestration and distributed data processing frameworks and tools (e.g., Airflow, Prefect, Hadoop, Spark, Ray)

Bonus Qualifications - Absolutely not required, but it's a plus!

- Docker, Kubernetes
- Familiarity with modern Javascript frameworks (e.g. React, Svelte, Next.js)
- Familiarity with Elixir and Phoenix
- Infrastructure as Code (IaC) using Terraform
- Experience building interactive web maps using modern libraries like OpenLayers, Mapbox GL JS, MapLibre, Leaflet
- QGIS
- Education or experience in wildfire, forest management, or other natural resources fields

Other Expectations

- Strong communication skills; you have the ability to communicate effortlessly, discussing complex technical concepts with engineers and non-engineers.
- Collaborative and supportive team player with a desire to enrich our engineering culture.
- Eagerness to learn, think creatively, and share knowledge with others.
- Ability to write understandable, testable code with an eye toward maintainability.
- Proactive and empathetic mindset - you love to roll up your sleeves to fix problems

Location

We are a remote-first company with a majority of the team in the US Pacific and Mountain time zones. US Location can be flexible, but we primarily target those two timezones and have offices in Missoula, MT and Truckee, CA.

Please note that we are unable to offer H1B sponsorship for this position.

Benefits

- Compensation Range: \$100,000-\$200,000 / year
- Health Insurance
- Unlimited PTO policy
- Company Equity
- Home office setup allowance (one time)

Applications

Please submit a resume (2 pages maximum) and cover letter (2 pages maximum) as a single PDF as well as responses to the Knowledge, Skills and Abilities questions using this [Google Form](#). We appreciate the time and effort it takes to apply for a new position, as a sign of respect, all applicants will be contacted with current status after each round.