

ALVARO GALVAN

San Francisco, CA · alvaglav@uni.minerva.edu · [LinkedIn](#) · [GitHub](#)

EDUCATION

[Minerva University](#)

B.S. in Computational Sciences

San Francisco, CA

May 2026

- Highly selective (<2% acceptance) program emphasizing critical and creative thinking, with coursework spanning six countries over four years.
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EXPERIENCE

[Pano AI](#)

Geospatial Data Analyst

San Francisco, CA

Jun 2025 – Present

- Built a spatial scoring framework using Rasterio, Fiona, and GeoPandas to rank 1,000+ critical infrastructure assets by wildfire detection coverage, integrating viewshed analysis, infrastructure density, and environmental layers into a single prioritization pipeline.
- Developed viewshed algorithms in Python and ArcGIS to optimize camera placement for wildfire monitoring, increasing high-risk zone coverage quantification from 0% to 40%.
- Produced maps and geospatial visualizations communicating spatial analysis outputs to operations and planning teams, supporting data-driven prioritization decisions across cross-functional stakeholders.
- Translated complex spatial algorithms into technical documentation for AI researchers and operations staff, bridging implementation details with real-world deployment requirements.

[Fuego.Earth](#)

Geospatial Data Engineer

San Francisco, CA

2025– 2026

- Designed and deployed an end-to-end geospatial simulation platform, containerized via Docker and hosted on Hetzner with Vercel auto-deployment on push from GitHub.
- Built ingestion pipelines that fetch and process gigabytes of raster data per simulation run from LANDFIRE and ERAS5 APIs, merging heterogeneous spatial datasets into simulation-ready outputs.
- Developed a public-facing frontend at [platform.fuego.earth](#) alongside internal Jupyter notebooks for simulation benchmarking and parameter tuning across landscape scenarios.
- Owned backend development and cloud deployment end-to-end, coordinating frontend integration across a collaborative team via GitHub.

[GridWare](#)

Data Analyst

San Francisco, CA

May 2023 – Nov 2024

- Monitored real-time sensor data streams from grid infrastructure using Grafana, applying time-series analysis to investigate 2,000+ anomaly alerts and escalating 100+ critical events to the on-call team.
 - Analyzed temporal patterns in grid sensor data to classify anomalies and distinguish genuine fault events from noise, supporting rule-based detection workflows across a 24/7 operations team.
 - Developed and maintained SOPs for anomaly investigation and incident reporting, improving classification consistency across the operations team.
 - Collaborated with a team of analysts on complex anomaly investigations, coordinating escalations to the on-call team and reviewing incident classifications for consistency. Trained incoming analysts on investigation SOPs and operational workflows.
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HONORS AND AWARDS

- Awarded merit-based scholarships for academic and leadership excellence (90%+) achievement at UWC Mexico, Neptune Scholarship from Semester at Sea (100%), and Minerva Scholarship (90%+).
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SKILLS

- **Geospatial:** ArcGIS Pro, QGIS, GeoPandas, Shapely, Rasterio, Fiona, PostGIS
- **Programming:** Python (Pandas, NumPy, SciPy, Matplotlib, PyTorch, JAX), R, SQL, Bash
- **Infrastructure & Tools:** Docker, GitHub, Vercel, Grafana, Jupyter, pytest, unittest