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Ivan Ogasawara

Open Source Developer · Research Software Engineer · Data Scientist

Summary

With 22+ years in software development, I build reliable data and platform tooling across backend, DevOps, and ML. I contribute to ecosystems like PyTorch, Ibis, and Jupyter; lead open-source initiatives; and apply modern DS/ML (and LLVM/compilers) to real-world problems in public health and engineering. I mentor engineers and students, and invest continuously in personal and professional growth.

Core Competencies

Python, C++, JavaScript \cdot Django, DRF, Flask \cdot Docker, CI/CD, Ansible \cdot PostgreSQL, Elasticsearch \cdot LLMs/OpenAI, RAG, LLVM \cdot Data pipelines, analytics, visualization

Selected Achievements

- Led multi-project OSS programs: CI/CD, containerized stacks, and search/data services at scale.
- Mentorship: 4 GSoC projects completed; 7 internship projects delivered; secured 3 PSF microgrants.
- Architected RAG and ML workflows (Django/Celery/Elasticsearch), improving retrieval quality and reliability.
- Active educator: TA roles in Python, Data Science, and analytics tooling (Pandas, Plotly, Quarto).

Experience (last 10 years)

Teaching Assistant @ WorldQuant University

2024–Present · Part-time

 Applied Data Science Lab: database management, data cleaning, regression/classification, visualization, ML ethics, BI.

Teaching Assistant @ The GRAPH Courses

2024-Present · Part-time

Python Basics and Beyond: fundamentals, pandas, Plotly, Quarto dashboards, GitHub workflows.

Executive Director @ Open Science Labs (OSL)

2015-Present · Part-time

- Founded incubator and OSS internship programs; coordinated roadmaps and community events.
- Managed 10+ active incubations and 3 affiliates; mentored contributors; secured 3 PSF grants.
- Tech lead across Makim, Sugar, ArxLang, SciCookie, Envers, Anamnesis.ai (DevOps, compilers, automation).

Research Software Engineer @ The GRAPH Network / LiteRev

2023-Present · Part-time

■ Tech & Team Lead, Software Architect, DevOps for literature review tooling (Python, Django, scikit-learn, pacmap, optuna, hdbscan, bokeh, Celery, Docker, CI/CD).

Research Software Engineer @ The GRAPH Network

2022–2023 · Part-time

 Server admin and service enablement; trainings on Git/Python; OSS best practices and architecture (Python, R, Docker, PostgreSQL, Ansible, Nginx, Superset, conda packaging).

Software Developer @ Inlyse

2022–2023 · Part-time

Lead developer of customer platform (license management, Stripe billing); data tooling for ML pipelines (Python, C++, Bash, JS, Ansible, Django, Docker, CI/CD, Stripe).

Software Developer @ Quansight / OSBIG

2018-2021 · Part-time

- Contributions: PyTorch, Ibis-framework, Jupyter, OmniSciDB; client work in Django/DRF, asyncio, Docker, GraphQL, Argo.
- DEI committee; organized weekly compilers sessions.

• Conda packaging for Python, R, and Java libraries.

Research Software Engineer @ Fiotec

2016-2017 · Contract

Influenza and dengue visualization/estimation portals (Python, pandas, bokeh, Django/Flask, GIS, PostgreSQL, Docker).

Research Software Engineer @ Fapeu

2016 · Contract

• Web system for visco-elastic pavement analysis in lab tests.

Research Software Engineer @ Fapeu

2013-2016 · Full-time

• Literature analysis in transportation engineering; DSP/ML/HPC for WIM, fatigue, complex modulus.

Open-Source Contributions (selected)

PyTorch · Ibis-framework · Jupyter ecosystem · Internal tools for DevOps, compilers, automation (LLVM, Docker, PostgreSQL, OpenAl API)

Education

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Transportation Engineering — Master's (interrupted), UFSC (2015–2016)
Information Technology — Post-Grad (Lato Sensu), Eniac (2004–2005)
Database Technology — Associate's Degree, Eniac (2003–2004)
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Certifications (selected)

Compilers (edX/Stanford) · Inclusive Leadership (edX/Catalyst) · Parallel Computing with Dask (DataCamp) · Deep Learning / ML with Python (DataCamp) · Applied Biostatistics (Osaka Univ/edX) · Hadoop/MapReduce (Udacity)

Languages

Portuguese (Native) · Spanish (Fluent) · English (Advanced) · Italian (Basic)