Gil Forsyth

Contact Information

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Summary

Software developer with a background in high-performance computing and computational performance. Software engineer, data scientist, experienced public speaker. Open source maintainer, contributor, and organizer. Pythonista.

Professional Experience

Voltron Data

- → Senior Staff Software Engineer **2024 -**
- → Staff Software Engineer **2021 - 2024**

Capital One

- → Senior Manager, Machine Learning Engineer **2021**
- → Manager, Software Engineer **2019 - 2021**
- → Principal Associate, Data Scientist **2017 - 2019**

Skills

Python: broad experience with the PyData stack with deep knowledge of tabular-data-oriented execution engines.

SQL, Substrait, machine learning, distributed systems, performance and optimization, packaging, version lifecycle management

Open Source Projects

Maintainership

- → Ibis Project, Steering Council Member
- → Substrait, Commiter
- → substrait-python, Maintainer
- → χonsh, Maintainer
- → Assorted conda-forge feedstocks, Maintainer

Contributor

- → Contributed to Dask, DuckDB, sqlglot, IPython, scikit-learn, and others

Conference Presentations and Service

Scientific Computing with Python (SciPy) Conference

- → Program Chair **2017 - 2020, 2025 -**

Tutorials

- → Introduction to Ibis: blazing fast analytics with DuckDB, Polars, Snowflake, and more, from the comfort of your Python repl @ PyCon 2024
- → Ibis: A fast, flexible, and portable tool for data analytics @ PyData 2023
- → Ibis: A fast, flexible, and portable tool for data analytics @ EuroSciPy 2023
- → Xonsh: Bringing Python Data Science to your Shell @ SciPy 2019
- → Python Performance for Poets @ PyCon 2019
- → Numba: Tell Those C++ Bullies to Get Lost @ SciPy 2016, SciPy 2017

Presentations

- → Ibis: Because SQL is everywhere and so is Python @ SciPy 2024
- → Ibis: Because SQL is everywhere but you don't want to use it @ PyData Seattle 2023
- → Ibis: Expressive Analytics in Python at any scale @ PyData NYC 2022
- → Universal Scalable Custom Machine Learning Estimators @ GTC 2020

→ Python, GPUs and Boundary Elements for Biomolecular Electrostatics @ SciPy 2017

Education

George Washington University, Washington, DC

Performed three years of studies in computational fluid dynamics in pursuit of PhD **May 2017**

Boston University, Boston, MA

M.S., Mechanical Engineering **May 2014**

Oberlin College, Oberlin, OH

B.A., History, East Asian Studies, Religion **May 2006**

Publications

→ Barba, Lorena, and Gilbert Forsyth. *CFD Python: the 12 steps to Navier-Stokes equations.*, Journal of Open Source Education 2.16 (2018): 21.

→ Clementi, Natalia C., et al. *PyGBe-LSPR: Python and GPU Boundary-integral solver for electrostatics.* Journal of Open Source Software 2.19 (2017): 306.

→ Cooper, Christopher D., et al. *PyGBe: Python, GPUs and Boundary elements for biomolecular electrostatics.* Journal of Open Source Software 1.4 (2016): 43.