Phillip Dupuis

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ABOUT

I am an engineer with over 10 years of professional experience in full-stack development, distributed computing, and AI/LLM integrations. I have a strong background in building scalable applications for healthcare, quantitative finance, and data analytics, with expertise in Python, Node/TypeScript, React, and cloud infrastructure technologies.

SKILLS

Python Django FastAPI Dask Pandas Task Graphs Distributed Computing C and Rust extensions
TypeScript Node React Next Astro Vite Playwright OAuth Web Workers Data Visualization
Docker Kubernetes Jenkins GitHub Actions Azure AWS Kibana Grafana
PostgreSQL Redis MongoDB Amazon S3 Elasticsearch
Agentic Workflows Function/Tool Calling Custom Integrations Vector Databases RAG

EXPERIENCE

Senior Software Engineer Man Numeric

01/2020 to present Boston, MA

- Created a comprehensive portfolio analytics platform over the course of four years, replacing multiple legacy systems
 and reducing developer maintenance costs from full-time to just 4-8 hours per month (a 95% reduction). The platform
 is fully self-service and is used by hundreds of portfolio managers, quants, and salespeople on a daily basis. Utilized
 React, Django, PostgreSQL, Redis, Excel plugins, and Slack bots.
- Developed a high-performance REST API for running computations on Dask clusters, with custom DAG optimizations
 that reduce the average compute time from hours to seconds. Expanded API adoption across several applications. In
 addition to improving user experience, this has allowed numerous overnight jobs to be decommissioned.
- Led Al/LLM initiatives as the expert and point person in Boston (~200 employees). Gave company-wide talks on utilizing function/tool calling effectively, mentored researchers and developers on best practices, and created a Slack bot with advanced RAG capabilities which receives thousands of queries every day.
- Published (internal) NPM packages for embedding LLMs in existing web applications and allowing them to act on behalf of the user. These packages were widely used both internally and in client demos and press interviews.

Software Developer MEDITECH

08/2014 to 12/2019 Framingham, MA

- Led development of an emergency room wait list enhancement that streamlined hospital workflows and automated critical triaging processes, leading to decreased wait times and improved outcomes.
- · Developed the proration algorithm, rule-building tools, statistical desktop, claims, and statements for 'package billing'.

PROJECTS

pydantic-to-typescript

https://github.com/phillipdupuis/pydantic-to-typescript ☆288

A python package for automatically generating TypeScript definitions from Pydantic models.

so you can ensure that your front-end and back-end models are always in sync.

I created this while working on a large project with a team of contractors, and it seems to be broadly useful.

EDUCATION

BS in Applied Mathematics-Biology Brown University

09/2010 to 05/2014 Providence, RI

My primary interests were genomics, probability, and statistical inference.