Peter D'Elia, Software Engineer

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About Me

I am a curious-minded software engineer who enjoys collaboration and problem solving. I recently built Dendro, a open source system monitoring framework built using AWS services, and intended to be used by small, distributed applications. I have full stack experience, with React and Redux on the front end, ExpressJS and Node on the back end, and PostgreSQL and MongoDB on the database level.

Experience

2021
Remote

Co-Creator, Software Engineer, *Dendro* ⧉
- Co-Created Dendro, an open-source, serverless monitoring framework for small, distributed applications. Integrates AWS services including IAM, Kinesis Firehose, Lambda, Timestream, SNS, S3, and CloudWatch.
- Led design and implementation of the Dendro CLI teardown functionality, ensuring that no services are left on the user's account.
- Contributed to the design and implementation of Dendro's deployment service.
- Wrote SQL queries for Timestream DB to enable visualizations of key metrics as well as front-end ReactJS code to display it.
- Implemented exponential backoff to AWS's optimistic response object.
- Authored writeup describing the difficulty of monitoring distributed systems, Dendro's approach to solving this problem, how it was designed and built, and engineering challenges.

2019 – 2021

Fullstack Developer, *Self-employed*
- Jello: A kanban board application built using MongoDB, ExpressJS, and React/Redux.
- RequestBean: A request bin application built using Ruby on Rails and Postgres. Supports user authentication, webhooks, and websockets.
- Airlines App: A flight routes application built using ExpressJS and ReactJS. Provides routing information between airports, filterable by airline or airport.

Skills

Frameworks
ReactJS, Redux, ExpressJS

Languages
JavaScript, Golang, TypeScript, Python, SQL

Misc. Skills
Git, Github, Linux, RESTful APIs, HTTP, OOP, PostgreSQL, MongoDB

Cloud Technologies
AWS: Kinesis, IAM, Lambda, S3, Cloudwatch, Timestream, SNS, DigitalOcean Droplet, Heroku

Education

2016

Ph.D., *University of Virginia*
Doctorate in music history, dissertation on Beethoven's music in its context.

2007

B.A., *Harvard University*
Bachelor of music. Piano performance, history, theory, composition.