

Peter D'Elia

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Profile

I am a curious-minded software engineer who enjoys collaboration and problem solving. I recently built Dendro, an open source system monitoring framework built using AWS services, and intended to be used by small, distributed applications. I have several years of full stack experience, primarily with JavaScript and Python.

Experience

Co-Creator, Software Engineer, Dendro 2021

- Created Dendro, (getdendro.com [↗](#)) an open-source, serverless monitoring framework for small, distributed applications.
- Designed, prototyped, and built Dendro using Node.js and AWS services (IAM, Kinesis Firehose, Lambda, Timestream, SNS, S3, CloudWatch).
- Automated AWS infrastructure deployment and teardown (TypeScript, AWS SDK)
- Contributed to the design and implementation of Dendro's CLI tool for configuration and deployment/teardown (oclif, TypeScript)
- Worked on design and implementation of data transformation components of pipeline (Vector, golang, Lambda, Timestream)
- Developed alerting system to monitor for system failures (golang, Lambda, Cloudwatch, SNS)
- Designed and implemented async exponential backoff code as a solution to AWS's optimistic response object, making pipeline deployment more responsive and resilient.
- Implemented SQL queries for Timestream DB to enable visualizations of key metrics as well as front-end ReactJS code to display it.
- Authored technical case study (getdendro.com/case-study [↗](#)) describing the difficulty of monitoring distributed systems, how Dendro was designed and built to solve this problem, and engineering challenges.

Fullstack Developer, Self-employed 2018 – 2021

- Jello: A kanban board app built with MongoDB, ExpressJS, and React/Redux.
- RequestBean: A request bin app built with Ruby on Rails and Postgres.
- Airlines App: A flight routes application built using ExpressJS and ReactJS.

Skills

Languages (JavaScript, Golang, TypeScript, Python, SQL) | **Frameworks** (ReactJS, Redux, ExpressJS, Flask)

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

University of Virginia, Ph.D. 2016

Doctorate in music history, dissertation on Beethoven's music in its context.

Harvard University, B.A. 2007

Bachelor of music. Piano performance, history, theory, composition.