Nicholas LiCalzi

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💼 Experience

Co-Creator, Software Engineer   Feb 2021 – Jun 2021
Dendro
Dendro (getdendro.com ⚲) is an open-source, serverless monitoring framework for small, distributed apps.

- Architected and built a fully serverless, auto-scaling, streaming ETL pipeline using AWS Kinesis Data
  Firehose, S3, and Lambda to centralize logs and metrics from collection agents on remote nodes in a
  distributed system to a central AWS Timestream database (serverless time-series database).
- Built a CLI wizard for configuring and deploying collection agents on distributed servers, as well as
  automating hundreds of AWS API calls in deploying, listing/reviewing, and tearing down the pipeline.
- Developed a dashboard and exploration platform for querying and graphing the collected monitoring data
  from AWS Timestream in near real-time using React, VictoryChart, and NextJS.
- Led production of our tech talk, watchable here: https://www.youtube.com/watch?v=LukfwxWKkkA ⚲
- Authored technical case study, readable at getdendro.com/case-study ⚲

Software Engineer   Sep 2019 – Jan 2021
Self-Employed
Developed open source software, some highlighted projects include:
- **Jello**: full-stack project management app using React/Redux, an Express RESTful API, MongoDB, and more.
- **Request Bean**: an app for collecting and inspecting HTTP/webhook requests. Built with Rails, Action
  Cable, Active Job, Redis, and PostgreSQL.

Urban Data Scientist   Oct 2017 – Sep 2019
Kohn Pedersen Fox
- Performed data and geospatial analysis using the Python data science and visualization stack (sklearn,
  Pandas, etc.), ArcGIS/QGIS (mapping), Rhino/Grasshopper (3D design & visual programming).
- Wrote documentation and led trainings for teams around the world in the use of our design tools.
- Published a paper proposing an environmental performance based zoning methodology for cities:
  https://ui.kpf.com/s/Performance_Based_Zoning.pdf ⚲

🧠 Skills

Languages   **Frameworks**
Ruby, JavaScript, Python, Go, SQL, HTML/CSS   *React, Redux, Rails, Express, Sinatra*

Misc. Technologies   **Cloud**
Git, Github, Linux, Node.js, HTTP, OOP, RESTful   *Kinesis, Lambda, S3, Timestream, CloudWatch, EC2,*
API, PostgreSQL, MongoDB, Big Data, MapReduce   *IAM, DigitalOcean Droplets, Heroku*

🎓 Education

Software Engineering (Capstone)   2019 – 2021
Launch School ⚲
Multi-year, mastery-based software engineering curriculum, with progression gated by written exams and
live coding interviews to develop problem-solving skills. Read more at launchschool.com/employers ⚲

M.S. Applied Urban Science & Informatics   2018 – 2020
New York University, Center for Urban Science and Progress
NYU CUSP is a research center dedicated to data/technology-driven solutions to urban problems, linking
data science, statistics and analytics. Coursework primarily using the Python data science stack.

B.A. Metropolitan Studies   2011 – 2015
New York University
University Honors Student / Founders Day Award recipient