

# Nicholas LiCalzi

🖱 [www.nlicalzi.com](http://www.nlicalzi.com) 🌐 [www.github.com/nlicalzi](https://www.github.com/nlicalzi) ✉ [nicholas.licalzi@gmail.com](mailto:nicholas.licalzi@gmail.com) ☎ (646) 351-9917

📍 Brooklyn, New York

## 📁 Experience

### Co-Creator, Software Engineer

Feb 2021 – Jun 2021

*Dendro*

Dendro ([getdendro.com](http://getdendro.com) 🌐) is an open-source, serverless monitoring framework for small, distributed applications.

- 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 (their new, 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 (time-series DB) in near real-time using React, VictoryChart, and NextJS.
- Led production of our tech talk, watchable here: <https://www.youtube.com/watch?v=LukfwxWKkA> 🌐
- Authored technical case study, readable at [getdendro.com/case-study](http://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*

- Data and geospatial analysis using the Python data science and visualization stack (sklearn, Pandas, etc.), ArcGIS/QGIS (mapping), Rhino/Grasshopper (3D design & visual programming).
- Published a paper 🌐 proposing an environmental performance based zoning methodology for cities.

## 🧠 Skills

### Languages

Ruby, JavaScript, Python, Go, SQL, HTML/CSS

### Frameworks

Node.js, React, Redux, Rails, Express, Sinatra

### Misc. Technologies

Git, Github, Linux, HTTP, OOP, RESTful API, PostgreSQL, MongoDB, Algorithms, Big Data

### AWS Cloud

Kinesis, Lambda, S3, Timestream, CloudWatch

## 🎓 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](http://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