

## Experience

### 03/2024 - Present | Google. Tech Lead & Manager - Overhead Sensor Data Platform. Denver. CO

Tech lead and manager of a **team of 5** engineers responsible for ingesting imagery and sensor data for Overhead views (aerial & satellite) on Google Maps and Earth Engine. Working closely with internal downstream consumers to make this data more easily accessible within Google to develop next generation products. These systems are primarily written in **C++** with some **Python**.

### 02/2022 - 03/2024 | Google. Tech Lead & Manager - Street View Ingest. Denver. CO

Tech lead and manager of a **team of 6** engineers responsible for ingesting imagery and sensor data used for Street View within Google Maps. Overseeing expansion of Street View to latest generation Google hardware and beyond with third-party partners, off-the-shelf hardware, and handling of user-generated submissions. These systems are primarily written in **C++** with some **Python**.

### 10/2015 - 02/2022 | Google. Tech Lead & Manager - DevOps. New York. NY

Lead team for Google's primary integration testing framework, written in **Python** and **Go**. Worked with a group of 9 engineers, directly **managing a team of 5** of them, to ensure Googlers has a world class framework for writing automated tests that can be run against a fully functional, isolated environment that mimics production services. This involved a full redesign of the **integration testing** framework at Google to directly integrate with the other standard software engineering tools. By splitting up this framework into a set of hosted micro-services the framework's usability was dramatically improved. I had to work closely with and **support 10,000's of engineers** across Google product areas.

### 10/2014 - 10/2015 | SomeSpider. Head of Infrastructure and Platform Engineering. New York. NY

Manage the **AWS** infrastructure for SomeSpider, which include digital magazine publications such as Cafe, The Mid, and Scarymommy; serving tens of millions of uniques a month. Manage CI tools and deployments to **CoreOS** clusters (consisting of a few dozen machines), using **docker** containers to keep a consistent environment. Server management done in **Ansible** and with a number of op tools written in **Bash**, **Python**, and **Go**. In charge of maintaining and developing our backend platforms, including restful APIs in Node and a number of backend services in **Node & Python** that interact with the other microservices via **RabbitMQ**.

### 3/2014 - 10/2014 | Bloomberg LP. Team Lead - Finance/Market Web Services. New York. NY

Lead a team of engineers to develop and maintain web based services to financial data from Terminal backed services for both internal (Bloomberg.com, Bloomberg Mobile, BLAW, BGOV, etc.) and external clients. These services managed tens of millions of requests a day and delivered consistent response times in the 10's of ms. Technologies developed in **Scala**, **Java**, **NodeJS**, and **Python** while integrating with multiple data stores (**MySQL**, **memcached**, **elasticsearch**).

### 7/2013 - 3/2014 | Getty Images. Contractor. New York. NY

Worked on a large team of a dozen engineers on architecting and building a complete new backend to handle asset ingestion and management across the entire business. The team was formerly a .NET shop and as the most seasoned engineer with **Scala** experience I consulted on best practices and how to incorporate a more functional approach to solving problems. I modified a number of open source projects to add extra functionality to meet business requirements and was responsible for maintaining the primary web service endpoint used for asset ingestion with **Spray** and **Akka** and integrating with other services via **RabbitMQ**. Also assisted in establishing

better software practices in documentation, code review, proper unit test coverage and build/deployment automation via technologies like **SBT**, **Puppet**, **Nexus**, and **Jenkins**

8/2012 - 7/2013 | Livestream, Team Lead - Senior Software Engineer, New York, NY

Lead a team of engineers (local and remote) to develop backend web-based services for the newest iteration of the live video streaming platform. This includes working on a **NodeJS** (frontend api) + **Scala** (backend asynchronous processing) stack to develop new Livestream functionality. Some projects included upgrading asynchronous processes to use **Gearman** queues and implementing an automated scheduling server to handle multiple tasks using **Quartz**. Lead a major project to redesign the core data layer from a non-performant design based around **Redis** to a **MySQL** based schema.

9/2006 - 8/2012 | Grooveshark, Senior Systems Engineer, Gainesville, FL

Developed a Peer to Peer client and server components in **Java** for the first iteration of the distributed system that powered Grooveshark, a digital music service. Maintained the audio streaming and uploading infrastructure, which at its peak was providing over **1 billion streams**, pushing **3-4 Petabytes** per month. Migrated infra to **Scala**. Developed an audio fingerprinting algorithm in **C** with web-service API in Scala built on the **Akka** framework. Scaled to over **50,000 file uploads** per day, with latency of **5-10 seconds per upload**. During deployment of this system I had to automate and manage **hundreds of AWS instances** to quickly fingerprint the back catalog of **tens of millions** of audio files. The project was under a time constraint (2 months) that we ultimately met. Performed a number of systems administration tasks, including provisioning servers from the OS level (**CentOS**) to the application server level (**Nginx/Apache**, **MySQL**, **ActiveMQ**, **Gearman**, **Redis**, Custom Servers, etc.) Proficiency with **Linux** administration and kernel tools.

## Volunteer Work

2016 - 2020 | Pursuit | Mentor, Tech Advisor, Google liaison, New York, NY

Pursuit (<http://pursuit.org>), through a long-term intensive program, trains adults with the most need and potential to get their first tech jobs, advance in their careers, and become the next generation of leaders in tech. I started as a volunteer and mentor to Pursuit fellows and quickly became a tech advisor and liaison for Google's partnership with Pursuit. I organized events at Google's NYC campus, getting dozens of Googler's to volunteer and mentor the hundred of fellows over multiple years, and helped create contact/relationships between Pursuit and Google recruiters to get the best feedback possible about how to set up the fellows for success during interviews and in their careers.

2013 - 2018 | Code Nation | Teacher, Curriculum Developer, Advisory Board Member, New York, NY

ScriptEd empowers students to be creators of technology by offering computer programming classes in low income high schools. (<http://codenation.org>). Taught high school students the basics of web development and coding with HTML/CSS & Javascript. Have been heavily involved developing curriculum across three years of courses. The focus is not simply making a web page but on teaching the fundamentals of programming and computer science concepts through javascript and web-based technologies. The students, with this knowledge, have the opportunity to take part in a summer internship program that places them at technology companies in the New York City area for 2 months. Aside from preparing students for a professional career in technology I'm proud to be part of the wider movement to improve computer science literacy.

## Education

Electrical and Computer Engineering  
University of Florida  
2004 - 2009