

Harvard University : A.B. in Visual and Environmental Studies, December 2011 Secondary field in Philosophy.

Main Skills: *Scala, Javascript, Typescript, SQL, Unity3d, C#, Oculus Rift/Go*

Back-End: *Akka, Ruby on Rails, Postgres, Firebase, MongoDB, Node.js, Websockets, Spring, Hibernate, AWS*

Front-End: *ReactJS, Angular2+, RxJS, D3, Processing (Js/Java), HTML5, CSS3, ThreeJS, Webpack, Gulp, Underscore*

EXPERIENCE

QuantumViz, CTO

February 2018 - Present, New York City

- Big Data Viz in 3d (and VR). Specifically visualizations and tools for data with 1M+ points (tested with over 50M in desktop and 10M in the browser), and tools for unstructured data, graph-like data, and geo data.
- Included artificial intelligence algorithms for dimensionality reduction (t-SNE) and cluster analysis (k-means).
- Began improvement on standard algorithms with GPU/Shader implementations.
- Isomorphic Unity Application for browser, desktop, mobile, and VR (**Oculus Rift/Go/Cardboard**).

Phosphorus (Recombine), Software Engineer

August 2015 - December 2017, New York City

- Created and maintained 11 applications for uploading genetic data, coordinating with data science teams for analysis using data pipelines, and workflows for variant curation to interpret patient data
- **Ruby on Rails** with **Angular** and **ReactJS**, full stack **Scala** with **Akka** with **Slick**, **Spring** and **Hibernate**.
- Pushed weekly releases, maintained a **PostgreSQL** DB, used various **Amazon** web services.

Private Tutor

June 2014 - May 2015, New York City

- Taught PreCalculus, Calculus through programming using animation and procedural art generation (L-Systems) in **Processing (Java)**.
- Organized and helped implement a year long project for a student simulating the evolution of the eye with demos using the **Oculus Rift (Unity3d)**

Animake It!, Co Founder/Engineer

Dec 2013 - August 2014, San Francisco

- Created an in-browser collaborative animation tool (Animakeit!) using the Leap Motion hand controller.
- Accepted into the Leap Accelerator and funded by SOS Ventures.
- Developed engine for 2D and 3D interactive animations in **ThreeJS**, **D3**, **React** that could be streamed to other clients in real time. Implemented with **Node.js**, **MongoDb** and **Websockets**.

Lightly Structured Data, Front-End Developer

Nov 2012 - May 2013, Remote

- Worked on data visualization projects (maps, election timelines with New York Times stories etc).
- Redesigned front-end using web components.

SPEAKING ENGAGEMENTS

(Confirmed) Unity + HTML5 = Isomorphic Game Engine?

Real-time Geolocation in VR using Unity, Akka and Play!

Make your Data Life Easy with Node Loopback

Intro to Angular 2

Survey of Front-End MV* Frameworks

Exploring the Virtual DOM: Uses and Applications

FullStackFest, Barcelona, September 2018

Live Performers Meetup, Amsterdam, 2017

Northeast JS Conference, 2016

Front End Camp, 2016

Open Source NYC Camp, 2015SS

Open Source NYC Camp, 2015

PERSONAL

Eagle Scout: November, 2006

Languages: English (native) / Spanish (fluent) / French (advanced) / Portuguese (intermediate)