



WORK EXPERIENCE

Development Seed

Javascript Engineer, 4/2020 - Present

- Contributed as Frontend, Backend, and ML Engineer on various project teams
 - Worked with React, Node, Mapbox GL, D3, Cypress, Jest, Python, and AWS CDK
 - Helped to design REST APIs and worked with SQL databases
 - Built web applications to support open data, climate science, disaster relief, and humanitarian goals
 - Developed human-the-loop machine learning mapping tool using WebSockets
 - Created MVP for analysis of massive agricultural data
 - Published as co-author via AI for Social Good at the AAAI Fall Symposium 2020
 - Managed teams collaboratively using agile methodologies
- [<https://www.landcover.io/>] [<https://openaq.org/>]

SITU Research in Brooklyn, New York

Software Engineer, Researcher, 7/2019 - 4/2020

- Built high performance applications in Javascript (Node, React, D3, Three.js, Deck.gl, Mapbox GL)
- Created fluid and intuitive user interfaces and organized user testing to iteratively improve
- Prototyped GLSL shader for distanced based, progressive rendering of massive 3D point clouds
- Optimized data and applications to run 3D environments on minimal hardware and cellular connections
- Collaborated with journalists to document and analyze spatial, social, and environmental injustice

ARiSe Lab at Columbia University, New York

Researcher, 9/2018 - 6/2019

- Studied the use of machine learning in static analysis in collaboration with Computer Science faculty

Center for Spatial Research at Columbia University, New York

Developer and Research Assistant, 9/2016 - 6/2019

- Built a prototype for a decentralized sensor network using React Native and the DAT protocol
 - Created web maps and data visualizations with Python and Javascript (Node.js, D3.js, p5.js, Express)
 - Built custom CMS for management of a MongoDB database by non-technical users
- [<https://hyfa.net/>] [<http://c4sr.columbia.edu>] [https://centerforspatialresearch.github.io/columbia_site/]
[<https://beyond-the-census.herokuapp.com>]

Computer Science Department at Columbia University, New York

Teaching Assistant, 9/2016 - 6/2019

- Introduction to Data Visualization, and Introduction to Computer Science and Programming in Java

Brown Institute for Media Innovation at Columbia University, New York

Developer and Research Assistant, 2/2018 - 7/2018

- Built the website and data visualization for a collaborative research project between the graduate schools of Architecture and Journalism
- [<https://canners.nyc>] [<https://brown.columbia.edu>]

Google Summer of Code Fellow with The Processing Foundation

Developer, 6/2017 - 9/2017

- Made major contributions to the open source codebase of p5.js-sound (The Processing Foundation)
- [https://jvn.tf.github.io/gsoc_workproduct/]

EDUCATION

Columbia University in the City of New York,

Bachelor of Arts, Class of 2019

Major in Computer Science (operating systems, compilers, networks, and security)

Concentration in History

ADDITIONAL EXPERIENCE

Creative Time X Summit

Workshop Presenter (with SITU Research), 11/2019

Columbia University Journal of Literary Criticism

Design Editor, 9/2016 - 5/2019

WKCR-FM New York

Director of Engineering and Operations, 1/2018 - 12/2018

Radio Programmer, 5/2016 - 6/2019

The Petey Greene Program

Volunteer Tutor, 9/2016 - 12/2018

SKILLS

Software Engineering

Programming Languages

Javascript (React, React Native, Redux, Node, Mapbox GL, Leaflet, WebSockets, D3, Three.js, Deck.gl, Webpack, Gulp, Cypress, Jest),
Python (Matplotlib, NumPy, Jupyter, pandas, AWS CDK),
C, C++, Ocaml, Java, Ruby

Tools

Git, Github Actions, CircleCI, Unix, AWS (S3, Step Functions, Lambda, CLI), Azure CLI, Docker

Software

3D Design

Rhinoceros, Grasshopper, Cinema4D, Blender

Geospatial

CloudCompare, QGIS

Music Production

Ableton Live

Fabrication

Woodworking, 3D Printing, Laser Cutting, CNC Milling, Soldering, Welding, Sewing,

Music

Trumpet Player / Composer / Producer

Language

Spanish (Conversational)

INTERESTS

Networking, Graphics, Sensing, Earth Data, Agriculture, Furniture Design, Natural Leavening

LINKS

Portfolio

<http://github.com/jvn.tf>

Linkedin

<https://bit.ly/2Ht0YCZ>