

Jonathan Engelbert

Full Stack Developer and GIS Engineer

jonathanengelbert@gmail.com • (323) 774-2271

jonathanengelbert.com

New York, NY

SKILLS AND ACHIEVEMENTS

HTML • CSS • JavaScript • Typescript • React • Angular • Node.js • NPM • Webpack • Python • SQL • Git • Linux • PostgreSQL / PostGIS • Docker • GIS • 3D Mapping • Mapbox • Cesium.js • D3 • Server Management • Database sManagement Graduated with honors in GIS and Geography • Magna Cum Laude Graduate • 2017 Excellence in Geography National Award • Fluent in Portuguese and Spanish • Work Experience in North America, South America and Europe •

Authorized to work in the US for any employer

WORK EXPERIENCE

GIS ENGINEER

Newmark Knight Frank - New York, NY (January 2020 to Present)

- Created and maintained geospatial databases, datasets and GIS infrastructure in support of the technology team, while assisting the research team with data cleaning and project management
- Created features for web applications focused on data visualization of large proprietary database utilized nation-wide written in Angular, Typescript, Mapbox and Cesium APIs
- Introduced 3D mapping workflows to existing custom enterprise applications
- Developed custom solutions for Liquid Galaxy presentations

GIS DEVELOPER

FDNY - New York, NY (October 2019 to December 2019)

- Maintained geospatial databases utilized by several city departments
- Developed APIs for mapping tools such as geocoding, travel time and nearest point of interest
- Produced, designed and maintained a web application used to track and edit the location of addresses and fire boxes across NYC, built with React and Redux
- Maintained software and database infrastructure for web GIS department needs

FULL STACK DEVELOPER AND 3D GIS ANALYST

CBRE - New York, NY (June 2018 to October 2019)

- Redesigned system architecture and workflows utilizing in-house python scripts and database management, saving the company \$100,000 in the first 2 months of employment and doubling productivity of users
- Rewrote existing web applications in React, reduced bundle size 300%, increased performance (and overall loading time) 5 times, reduced consumption of resources client-side almost 10 times
- Built 3D and 2D web applications for data visualization and analyzes of spatial assets
- Automated several tasks and workflows, dramatically speeding up processes and increasing productivity, by simplifying a convoluted data retrieval process into a simple drag and drop operation
- Managed databases of 3D Buildings, curating geometry of assets as well as the attribute data aggregated to each of its more than 30 thousand buildings
- Assisted dozens of users with GIS tasks such as data processing, creation of maps and analysis in ArcGIS Pro
- Designed 3D models of buildings in CityEngine, Rhino and Sketchup

FULL STACK DEVELOPER AND GIS ANALYST

City and County of San Francisco (Urban Planning Dept) – San Francisco, CA (August 2017 to May 2018)

- Built, tested and maintained software used to validate and standardize address data that reduced operational costs an estimated \$50,000 a year, increasing accuracy and reduced the time taken to validate and standardize address data from an average of 3 days to 3 minutes
- Built scripts that accelerated and increased the accuracy of processes of data parsing and data management by over 70%, including loading over 30 years of digital records to an Oracle database, with 99% accuracy using regular expressions and Python
- Worked with private contractors on a web tool used to calculate construction fees based on City Planning code
- Designed and maintained databases across multiple AWS servers
- Built and maintained several web maps and GIS-centric web applications
- Created, tested and maintained over 60 Python ETLs, which process, update and load large amounts of data, often daily, across multiple servers and applications
- Responded to daily ad hoc data requests, including the production of maps and spatial analysis
- Performed data mining and research

DATA MANAGEMENT GIS INTERN

Seattle Public Utilities - Seattle, WA (May 2016 to June 2017)

- Performed data modeling and digitization of Seattle Public Utilities and privately-owned infrastructure
- Performed data analysis, production of cartographic products, digital datasets and web apps

TECH SUPPORT HELP DESK

Seattle Public Utilities - Seattle, WA (May 2016 to June 2017)

- Assisted students and teachers with hardware and software solutions, on and off-site
- Facilities management assistance
- Planning and scheduling of classes and room utilization

EDUCATION

BACHELORS IN GEOGRAPHY (GEOGRAPHIC INFORMATION SCIENCE CONCENTRATION)

University of Washington - Seattle, WA