

JESSICA GARRETT

Full stack developer and FOSS enthusiast, fluent in web development frameworks with a focus in database/ETL management and geospatial application design

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SKILLS

LANGUAGES Python JavaScript HTML5 CSS3 SQL BASH C++ R LaTeX
FRAMEWORKS & LIBRARIES jQuery Node D3 Backbone Webpack OpenLayers Leaflet Bootstrap
DB PostgreSQL SQLite Oracle
TOOLS Docker Apache GeoKettle GeoServer GDAL/OGR QGIS Git JSON AWS MATLAB

Open Source GIS Programmer

2021 Jan – Present

Lynker, Boulder, CO – Affiliate to NOAA

Develop, test, and integrate model formulation advancements to OWP's current NWM
Adapt legacy hydrological models, and their sub-components, to a robust BMI-enabled framework using FORTRAN, C, C++ and Python
Facilitate GIS data development in compliance with OGC standards and FOSS best practices for optimal cross-system interoperability

Web Developer Volunteer

2020 March – Dec

Health4TheWorld, International - Remote

Design and implement a web-based PPE global locator tool for Covid-19 health responders
Construct geodatasets for various mapping applications
Manage and update organization's website (WordPress)

EXPERIENCE

Senior Consultant, Web and Mobile Mapping Software Developer

2018 Jan – 2020 Feb

IQGeo, Denver, CO

Built custom application controls and plug-ins extending core myWorld products
Orchestrated network configurations for application(s), load-balancer, proxy and database servers and web services (RESTful)
Created, integrated and monitored ETL processes using BASH, Python, GeoKettle, PostgreSQL and GeoServer

GIS Engineer/Coordinator

2016 Nov – 2018 Jan

ICON Engineering, Centennial, CO

Oversaw health of all geospatial data including topographic, aerial imagery, LiDAR, FEMA flood databases and infrastructure mapping
Developed custom web mapping applications using MapboxGL-JS, D3.js and Gulp.js, for streamlined user-interactive data analysis
Modeled hydraulic and hydrologic systems via SWMM and Flo2D to guide proactive floodplain management for Colorado municipalities

EDUCATION

MEng, GIS and Geomatics, University of Colorado Denver

BS, Applied Mathematics, University of Colorado

PRESENTATIONS

2019 myWorld Meetup

Technical Forum, *Building Basemaps for Offline Deployment*

Guest Lecturer

University of Colorado Denver College of Engineering, graduate GIS courses