Kim McCallum

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Geospatial Developer

GitHub LinkedIn Portfolio

Summary

Full-stack developer with experience in GIS and remote sensing looking to expand my career in geospatial web development. Demonstrated ability to learn and apply technical skills in response to geospatial problems and resource management needs.

Skills & Technologies

Fullstack tools: JavaScript (ES6), React, Express, jQuery, HTML5, CSS3, Node.js, PostgreSQL, Git, NPM, Python and R. **Additional skills:** RESTful APIs, unit testing, algorithms and data structures. Geospatial analysis and data management with Google Earth Engine, eCognition, ArcGIS and related Esri solutions as well as FOSS tools such as QGIS, gdal/ogr, and LeafletJS. Statistical modeling and analysis with multivariate, GLM and machine learning methods.

Recent Projects

Process Journal I https://github.com/kim-mccallum/process-journal-client

- Full stack interactive web application for goal setting and tracking. This application is based on the premise that in order to achieve long term goals, you should focus on maintaining good habits related to your goal and track measurable steps leading up to.
- Tech: React, Leaflet.js, CSS, Express, Node.js, PostgreSQL, Knex.js, ChartJS, Heroku and Vercel Hawkwatch Raptor Tracker | https://github.com/kim-mccallum/raptor-tracker-client
- Follow raptors in near-real-time to study habitat use and behavior patterns. This is in progress and is being built to assist researchers with Hawkwatch International and provide an educational tool for the public to learn about raptor biology.
- Tech: React, Leaflet.js, CSS, Express, Node.js, PostgreSQL, Knex.js, Axios.js, Node-Cron.js, Heroku and Zeit

Global Earthquake Explorer | https://github.com/kim-mccallum/global-earthquakes

- Explore recent earthquakes around the globe. This project connects to the USGS earthquake API and provides users with an interactive map for exploring recent earthquake events.
- Tech: LeaftletJS, ¡Query, HTML and CSS

Experience

Redcastle Resources

Salt Lake City, Utah April 2012– June 2020

Geospatial Programmer

- Support and develop apps for natural resource applications.
- Supported vegetation mapping projects including image processing, data collection, geospatial modeling, validation and reporting.
- Designed and built custom analysis tools for image processing, change detection and monitoring applications using Python, R and JavaScript.
- Developed and delivered technical training on GIS/RS technology and methods including geoprocessing with Python and R, change detection, inventory modeling with lidar data and others.
- Evaluated and documented emerging remote sensing technologies.

Northern Arizona University

Graduate Research & Teaching Assistant

Flagstaff, Arizona August 2009 – December 2012

Conducted ecological research including field, laboratory and geospatial analyses.

• Taught undergraduate biology lab classes as well as mentored in biology and GIS lab and field methods.

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Education

THINKFUL

December 2019 - June 2020 (expected)

Full-Stack Web Development

- Learned industry best practices and practical software development standards with a focus on HTML5, CSS3, JavaScript, jQuery, Node.js, React, Redux, and algorithms & data structures.
- Created and deployed mobile-first applications while learning new languages and frameworks by collaborating several hours every week with a senior web developer.

NORTHERN ARIZONA UNIVERSITY

M.Sc. in Biological Sciences

September 2009 - December 2011

• Research and coursework focused on landscape ecology, species distribution modeling and geospatial and statistical analysis techniques.

UNIVERSITY OF OREGON

B.Sc. in Biology

September 2002 - June 2006

• Coursework and undergraduate research focused on ecology and evolution as well, plant and animal physiology and taxonomy