Carl Schroedl

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Summary

After nearly 6 years of accelerating science through software, developer seeks to heighten impact.

Selected Professional Experience

United States Geological Survey   January 2013 – Present

Computer Scientist

Develops open-source software to improve scientific understanding of water resources. Coordinates with more than 15 on-site and remote software developers to produce cost-effective software via various Agile methodologies. Contributes to more than 10 large projects that publish, visualize, analyze, transform, and manage environmental data. Addresses needs of numerous users including scientists, natural resource managers, and the public. Collaborates with scientists, sysadmins, DBAs, designers, scrum masters, and managers. Automates builds, tests, deployments, server configurations, and code quality metric collection. Develops backends in Java and Python. Develops frontends in HTML5, JavaScript, and CSS 3. Creates interactive web visualizations for time series, categorical, and geospatial data (viz portfolio). Attends 1-3 technical conferences per year. Chaired USGS meetings to facilitate knowledge transfer between developers. Presents summaries of material from conferences and normal project work. Recruits new developers. Mentors new full-time developers. Simultaneously mentored three student interns' contributions to Unidata's THREDDS. Authored a $90k grant proposal. Created USGS-wide software engineering best practices. Regularly performs code review and receives it from others. Most code is visible on github.

Education

University of Wisconsin – Madison   2008-2012

B.S. in Computer Science, Cum. GPA: 3.1. Wallin Scholar.

Programming Languages (in order of descending proficiency)

Java, Python, PHP, JavaScript, C, C++, bash

Selected Other Software Tools

Geospatial: Geoserver, OpenLayers, Leaflet, QGIS, 52 N SOS, PostGIS
Scientific: THREDDS, NetCDF, CDM, NetCDF-Java, CF Conventions
Miscellaneous: git, Spring Framework (MVC, Boot), Servlet API, maven, gradle, Eclipse, NetBeans, NetBeans Platform, Ansible, Docker

Activities & Interests

Playing accordion, contributing to the open-source graph data project Gephi, bicycle touring, contributing to the open-source ranked voting project Pivot Libre, learning Apache Spark, gaining proficiency with Python data science tools, attending local tech user group meetups

Curriculum vitae and more information available at http://carlschroedl.com/blog/about