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## TECHNICAL SKILLS

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**Programming:** JavaScript, Python, Java, R, SQL, RDF/Semantic Web, React/Redux, Falcor, Rx(JS), Docker

**GIS:** qGIS, Web Cartography, OpenStreetMap APIs, Leaflet.js, MapBox-GL.js, PostGIS

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## PROJECTS

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### Rivium

[rivium.io](https://rivium.io)

A data discovery platform for analyzing loosely structured data. The application leverages the semantic web RDF data model, and is built out across a number of backend Spring Boot microservices.

- Led front end redesign from legacy Ember application to React application, leaning heavily on Falcor, RxJS, and Redux

### OpenStreetMap Logging Roads

[loggingroads.org](https://loggingroads.org)

A platform to crowdsource citizen monitoring of rainforest logging activities. Collectively mapped over 3000 km of logging roads, identifying instances of illegal logging. The project won the 2015 *Eye on Earth Data Innovation Showcase*.

- Designed the web client for in-browser analysis of satellite imagery and project editing statistics
- Oversaw project management with partners in Washington DC, LA, and the DR Congo, leading five user training sessions

### Moabi DRC

[rdc.moabi.org](https://rdc.moabi.org)

An open-source geodata management platform based on OpenStreetMap for forest monitoring in the Congo Rainforest

- Built the site front end using leaflet.js for web map visualization alongside the Jekyll static-templating framework
- Managed a growing team of project partners and consultants, and led project trainings in the DR Congo and across the US

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## EXPERIENCE

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### Berico Technologies *Software Engineer, 2015 - present*

Built web platforms to manage large, loosely structured datasets for government and private sector multi-year contracts.

- **Rivium:** Led front-end development, focusing on reactive state management patterns using Redux and RxJS, and on semantic tools using the RDF data model. Developed middle tier microservices in Node and Java Spring Boot: [rivium.io](https://rivium.io)

### CrowdCover *Developer - Project Coordinator, 2015 | Cartography Lead, 2013 - 2014*

Developed open source geographic data management platforms for forest governance in the Democratic Republic of the Congo.

Built out the project's web-based monitoring platform and directly managed projects from inception through to completion.

- **Moabi DRC:** Headed web development, cartography, and research and strategy: [rdc.moabi.org](https://rdc.moabi.org)
- **OSM Logging Roads:** Led web development and strategy in partnership with the *World Resource Institute*: [loggingroads.org](https://loggingroads.org)
- **CongoMines:** Managed the build-out of the *Carter Center's CongoMines* web platform, including team recruitment, database design, client management, and front-end development: [www.congomines.org](https://www.congomines.org)

### Independent Geospatial Consultant *2012 - 2014*

Consulted on web development, data analysis, research, project management, and cartography with clients and partners.

- **World Bank:** Lead developer of the web-based geodata visualization platform for natural resource governance, managing research teams on both the Dem. Republic of the Congo and Afghanistan
- **GroundTruth Initiative:** Cartography and data analysis for the *MapKibera* and *Kibera Open Schools* projects
- **The Woodrow Wilson Center:** Web development, data analysis and visualization on two published and widely-cited projects on Chinese energy and natural resource management policy
- **Amnesty International USA, Science for Human Rights Fellow:** Research and data analysis on International Human Rights law and humanitarian monitoring projects

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## EDUCATION

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Middlebury College | Political Science/Sociology, 3.58 *cum laude* GPA 2006 - 2010  
Hyderabad Central University | 3.83 GPA 2009

Middlebury, VT  
Hyderabad, India