

Jason Berney

Senior Software Developer

Website - <http://jasonberney.com/>

GitHub - <https://github.com/jasonrberney>

Projects:

- JavaScript (React & Redux) - <https://github.com/jasonrberney/react-mapbox>
- Python (Folium & Twitter API) - <https://github.com/jasonrberney/FoliumMappingTwitterAPI>
- SQL (ETL Processing) - <https://github.com/jasonrberney/ETLScripting>
- Mobile Development (React Native) - <https://github.com/jasonrberney/react-native-maps-project>

Overview:

I work as a full stack software developer leading and supporting web application development for interactive dashboards, field data collection, designing data visualizations and mapping for spatial insights. I am focused on building web applications using modern web frameworks such as React and Angular. I have developed desktop applications with C#, and built Restful API's using Node.js. I am interested in using modern technology to solve unique business challenges.

Technical Skills:

- Typescript
- React
- Redux
- JavaScript
- Node.js
- ES6
- Docker
- Microsoft SQL Server
- Microsoft Azure/DevOps/CI Pipelines
- Python
- Webpack/Babel
- JIRA
- Git/Yarn
- REST API
- Esri ArcGIS Enterprise
- Mapbox
- AWS *exposure through Certificate in DB Management
- CSS/SASS

Education:

MS in Geospatial Technology, University of Washington

2016 Tacoma, WA

BS Environmental Sciences, Minor Spatial Studies, University of Redlands

2015 Redlands, CA

Certifications:

Certificate in Database Management, University of Washington

2018 Seattle, WA

- Concentration on best practices for database design; exercises using SQL Server, MongoDB, Microsoft Azure and Amazon Web Services. Data movement with Transact-SQL, ETL Processing, and SSIS.

Partner Bootcamp, OSIsoft Houston Regional Office

2016 Houston, TX

- Studied application of PI System topics including PI Data Archive and PI Asset Framework.

Professional Experience:

ICF, Portland, OR

October 2018 — Present

Software Developer

- ❖ California Air District, CalEEMod – Senior Software Developer
 - The California Emissions Estimator Model (CalEEMod) is a statewide land use emissions model to quantify potential criteria pollutant and greenhouse gas emissions associated with a project.
 - Project work includes a complete rebuild of the model for the web as well as adding additional input fields and modifications to model computations.
 - Designed front end user interface and managed database infrastructure.
 - **Technical Environment:** Next.js, Typescript, Docker, Azure DevOps, Redux Toolkit

- ❖ San Bernardino Valley Municipal Water District, Upper Santa Ana HCP – Senior Software Developer
 - Upper Santa Ana River Sustainable Resources Alliance is enabling water resource agencies to provide and maintain a secure source of water for residents and businesses in their watershed.
 - Designed website that helps Alliance manage a fully integrated environmental compliance program, including a Habitat Conservation Plan, tributaries restoration and mitigation banking.
 - Managing agile development and presenting website to project stakeholders.
 - **Technical Environment:** Next.js, Typescript, Docker, Azure DevOps, Redux Toolkit
- ❖ ICF Aviation Division, Truesight Platform – Lead Software Developer
 - Platform provides a single access point for airport commercial data, airport service, traffic, macroeconomic factors, and demographic data via aggregated tables, charts, and graphs.
 - Identifying operational trends, planning for capital improvements, and strategic planning.
 - Built backend infrastructure and frontend user interface for dashboards displaying results from worldwide aviation cargo import and export analyses.
 - **Technical Environment:** Node.js, Mapbox, React, Redux, Microsoft Azure
- ❖ EDF Renewables, Compliance Tracking – Lead Software Developer
 - Designed and developed dashboard for viewing and tracking mitigation measures through project completion.
 - Allows administrators to update measure notes and completeness.
 - Tracking software includes document libraries for organizational purposes.
 - **Technical Environment:** Microsoft Azure, DevOps, Blob Storage, Node.js
- ❖ Surface Transportation Board, Office of Environmental Affairs, Uinta Basin Railway – Lead Software Developer
 - Developed project website for the Uinta Basin Railway Environmental Impact Statement.
 - Tool includes public scoping comment submission forms.
 - **Technical Environment:** Microsoft Azure App Services, DevOps, jQuery, React, Mapbox
- ❖ ICF Aviation Division, Truebook – Software Developer
 - Developed dashboard visualization for analyzing maintenance cash flow of leased aircraft.
 - Truebook subscribers see when lessee or lessor payments are due for various aircraft upkeep and get total cash inflows and outflows for a defined timeline.
 - **Technical Environment:** Docker, RxJS, Angular, React
- ❖ HomeFed, Otay River Restoration– Software Developer
 - A web application was created for internal and external data viewing for the Otay River Restoration project.
 - The mapping application features drone flight aerial imagery and comment sharing for project managers to document their observations and overall project progress.
 - A custom solution for displaying data from Fulcrum forms was implemented so that field biologists could quickly sync and view information with the web map.
 - **Technical Environment:** Microsoft Azure App Services, Fulcrum, React
- ❖ Federal Highway Administration, Freight Projects – Software Developer
 - A web application was created to visualize freight highway projects by state.
 - Tool includes spatial filtering by project type and a breakdown of projects per state.
 - The viewer was created to give the public a better idea of where federal funding is being spent.
 - **Technical Environment:** Microsoft Azure App Services, DevOps, React, Redux
- ❖ City of San Diego, San Diego Climate Change – Software Developer
 - Multi-year effort to aid the City of San Diego in better understanding and preparing for its vulnerabilities related to climate change.
 - Analysis focused on identifying what city assets were at risk of different environmental factors such as sea level rise, heat exposure, fire and flooding.
 - Python and Esri's arcpy scripting library were leveraged to expedite the spatial analysis.
 - **Technical Environment:** Python, DevOps, React, Esri

- ❖ LA Metro, EV Charging Demand Modeling and Visualization – Software Developer
 - Map centered design allows users to analyze datasets related to Electric Vehicle charging infrastructure.
 - Application allowed users to download data, take screenshots, and filter relevant data.
 - **Technical Environment:** Microsoft Azure App Services, DevOps, jQuery, React

Integral GIS, Seattle, WA

August 2016 — October 2018

GIS Specialist, Data Engineer & Software Engineer

- ❖ ERCOT (Electric Reliability Council of Texas) – Software Engineer
 - Mapbox frontend development incorporating React and Redux.
 - Consultation for application architecture using modern JavaScript.
 - Implementation of weather data for disaster response.
 - Integrated modern JavaScript into jQuery application using Webpack & Babel.
 - **Technical Environment:** Node.js, Mapbox, React, Redux, jQuery, JIRA, AGILE
- ❖ PJM Interconnection – Sr. Data Engineer
 - Geodatabase development and information architecture.
 - Data automation & customization using Python.
 - Application development using C# and ArcGIS Runtime SDK for .NET.
 - **Technical Environment:** Node.js, Esri ArcGIS Enterprise, Python, C#, REST API, SQL Server, Git, Web Services, AGILE development
- ❖ Marine Exchange of Alaska – Software Engineer
 - Mobile Application for vessel tracking.
 - Evaluation comparing React Native and Xamarin Forms for mobile development.
 - **Technical Environment:** React Native, Node.js, Redux, Babel, Webpack, Yarn, Git.
- ❖ Jones Lang LaSalle – Data Engineer
 - ArcGIS Map Service deployment.
 - Data quality assurance.
 - **Technical Environment:** Esri ArcGIS Enterprise, REST API, Web Services
- ❖ Pacific Northwest Regional Council of Carpenters – Data Engineer
 - Data modeling for contract partners and field representatives.
 - System architecture design for new hardware & software implementation.
 - Data hosting and web services for GIS Web Mapping Application.
 - **Technical Environment:** Esri ArcGIS Enterprise, SQL Server

OSIsoft User Conference, San Francisco, CA

March 2016

Presenter

- Presentation on connecting a PI System to a GIS web mapping application using the PI Web API.
- Presented at the OSIsoft annual User Conference; conference provided substantial business networking.
- Co-presenter with Ed Kovler (PJM Interconnection).

Integral GIS, Seattle, WA

July 2015 — August 2016

Geodatabase Infrastructure and Design Intern

- Modeling and developing databases for clientele.
- Experience with SQL Server, Esri ArcGIS Enterprise and Enterprise Architect.

University of Redlands Center for Spatial Studies, Redlands, CA

January 2015 – May 2015

Research Assistant

- Integrate spatial thinking and technologies into research and service; includes raster analysis and CAD.
- Provide ArcGIS and data support; help students discover new ways to portray data.
- Assist faculty with projects; provide technical support including creating story maps for outreach efforts.

Ecotrust, Portland, OR

July 2014 – August 2014

GIS Intern

- Intern under Director of Spatial Analysis, Mike Mertens.
- Reproduced county level descriptive statistics from an Economic Development Quarterly article.
- Used ArcGIS Platform to analyze county level statistics to evaluate local and regional food supplies.

City of Portland, Portland, OR

July 2014 – August 2014

GIS Volunteer

- Volunteer for the Tree Inventory Project, under Data Coordinator Jeremy Grotbo.
- Data entry in ArcGIS; worked with large network geodatabase's and produce domains in ArcMap.

Johnson Creek Watershed Council, Portland, OR

June 2014 – August 2014

GIS Intern

- GIS intern producing maps for outreach efforts for Program Outreach Coordinator, Amy Lodholz.
- Served the community by keeping neighborhoods up to date on current operational projects.