

Skills and Proficiencies

Programming

- **Development Languages**
Javascript, Ruby, Python, C++, Java, Perl, PHP, Shell Scripting
 - **Web Front-End**
Vue.js, React.js, Vuex, Redux, jQuery, Bootstrap, Sass, Webpack, etc
 - **Web Back-End**
Node.js, Ruby on Rails, PHP, ColdFusion, Groovy, Django
 - **Web Services**
Socket.io, REST, SOAP, GraphQL, Sequelize, web tokens, etc.
- **Mobile** Java, React Native
- **Desktop** C++ in Microsoft WinForms and Qt
- **Search** Solr, Lucene and Elasticsearch
- **Databases**
 - **SQL** Postgresql, SQLite, MySQL
 - **NoSQL** MongoDB, ArangoDB, Neo4j
- **Interface design and mockup** Mockflow and Adobe XD
- **Version Control** Git

Administration

- **Management**
CentOS, Redhat and Debian servers and virtual machines
- **Automation** deploying virtual machines via Docker and Ansible, archiving backups, general administration tasks, etc.
- **Web Servers**
Nginx, Apache, Tomcat
- **Database administration and optimization**
PostgreSQL, MySQL, SQLite, MongoDB
- **Hardware** Installed, configured and maintained servers, switches and storage
- **Software** Compile, install, monitor performance and manage system resources.
- Working with stakeholders to address needs for storage, setup, and provisioning. Implement standards for data storage and archiving.

Work Experience

Research Programmer & System Administrator, 2016 - Present

University Of Missouri – Columbia, Missouri

- Created and maintain data portal, education, and data collection research sites for National Science Foundation projects
 - Javascript, Django, Groovy, PHP, Drupal, Node.js, Vue.js, React.js
- Write and maintain bioinformatics research software for genome assembly browsers and genomic data mining
 - Javascript, Ruby, Python, C++, Shell, Javascript, R
- Manage, archive and maintain all research data for Missouri EPSCoR state wide grant project
- Contribute software for published research, including genetic tools, bioinformatics and educational software
- Collaborate with faculty, postdocs and students to solve technical problems and contribute to research projects
- Maintain 10 high-performance research servers and many (20 or so) kvm / vmware virtual machines
- Installed and managed software: WARF, R, Matlab, genetic pipelines, SMRTLink, etc.

Quetza Software CTO / Co-Founder, 2018 - Present

Quetza Software LLC – Columbia, Missouri

- Co-founded software company for developing agricultural educational products for academic and industry use
- Sole full-stack developer for [SeeGenetics](#) and [SeeBeefGenetics](#) web applications. Created simulation game, authentication service, educator portal and AI game companion. Iteratively designed games in conjunction with 36 universities worldwide.
 - Vue.js, Vuex, Bulma, OAuth, Express.js, Sequelize, Postgresql

Programmer Analyst, 2012 - 2016

University Of Missouri – Columbia, Missouri

- Built custom web applications for financial officers and controllers
 - Javascript, Coldfusion, PHP, SQL
- Wrote financial software to interface with credit card companies and the campus bookstore
- Re-wrote custom, legacy software and updated for modern use and maintenance
- Created javascript framework for quickly building and deploying financial reports

Freelance Developer, 2006 - 2012

Self Employed – St. Louis, Missouri

- Wrote software and web applications for various clients in the St. Louis area, for example:
 - C. Rallo Meat Company
 - created software (C++) to link scales together for pricing information
 - created mobile apps (Java) for various in-store calculations and pricing
 - Saint Louis Wrestling Officials Association - Scheduling website for Missouri high schools and officials
 - Ruby on Rails, PHP

Education

Bachelor of Science Mathematics and Computer Science

Webster University Webster Groves, MO