

# MATTHEW GALVIN

## SOFTWARE ENGINEER

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### OVERVIEW

Software engineer with over five years of experience in bioinformatics pipelining, genomics data analysis, and full-stack web development.

### EXPERIENCE

**Bioinformatics Pipeline Engineer**  
Invitae

**Jun 2021 - Present**

- Whole genome sequencing assay development.
- Software systems integration.
- Germline variant calling and data analysis.
- Preimplantation genetic testing.

*Python, Nextflow, HPC, Docker, Singularity, Shell Scripting, Data Analysis*

**Bioinformatics Scientist**  
Providence Health & Services

**Nov 2020 - Jun 2021**

- Oncogenic variant detection and bioinformatics pipeline development.
- Python machine learning.
- Cloud storage, computation, and pipelining.
- AACR Project GENIE data analysis.

*GCP, AWS, Docker, Python, R, Shell Scripting, Cromwell, Nextflow, IGV*

**Genomics Software Engineer**  
Providence Health & Services

**May 2019 - Nov 2020**

- Google pipeline development and clinical report generation.
- Developed a Rails web app to present somatic sequencing variants.
- Mentored new engineers in software best practices.
- Managed a React/Postgres web app for clinical sequencing orders.

*GCP, Docker, Ruby/Rails, Javascript/React, Python, Postgres, MongoDB*

**Engineer, Life Cycle Management**  
Illumina, Inc.

**Nov 2017 - Apr 2018**

- Python manufacturing automation solutions.
- Debugged instrumentation software in a production environment.
- Established SW deployment strategies with manufacturing partners.
- Vendor quality control and cost management.

*Manufacturing, Project Management, Python, Shell Scripting*

**Software Test Engineer**  
Illumina, Inc.

**Sep 2014 - Nov 2017**

- Software test lead for the NextSeqDx, MiSeq, and MiniSeq sequencers.
- Managed a team of test engineers to execute verification protocols.
- Python automation and functional testing for sequencer UI workflows.
- Agile project planning and software requirements gathering.

*Software Test, C#, Python, JIRA, JAMA, SAP*

### EDUCATION

B.S. Chemical Engineering  
Oregon State University, 2014

### LANGUAGES

Experienced in **Python, R, Ruby, JavaScript**, and **Shell Scripting**.

### SKILLS

- Software Engineering
- Pipeline Development
- Genomics & Bioinformatics
- Machine Learning
- Docker & Singularity
- High performance computing (HPC)
- Amazon Web Services (AWS)
- Google Cloud Platform (GCP)
- Web Development
- Material-UI & Bootstrap
- React & jQuery
- Flask & Ruby on Rails & Express
- Data Visualization
- D3 & ggplot & matplotlib
- Database Design
- BigQuery & Postgres & MongoDB
- Process Automation
- Software Verification & Validation
- Agile & Scrum
- Github & Bitbucket & GitLab
- Project & Product Management
- MacOS & Linux & Windows
- Adobe Creative Suite
- CITI Certification
- $\LaTeX$

### LINKS

- [matthewgalvin.com](http://matthewgalvin.com)
- [linkedin.com/in/matthewgalvin](https://linkedin.com/in/matthewgalvin)
- [github.com/galvinma](https://github.com/galvinma)