

MATTHEW GALVIN

SOFTWARE ENGINEER

OVERVIEW

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

EXPERIENCE

Bioinformatics Pipeline Engineer

Jun 2021 - Present

Invitae

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

Python, Pandas, HPC, Docker, Singularity, Shell Scripting, Data Analysis

Bioinformatics Scientist

Nov 2020 - Jun 2021

Providence Health & Services

- 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

May 2019 - Nov 2020

Providence Health & Services

- Google pipeline development and clinical report generation.
- Developed a Rails webapp 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

Nov 2017 - Apr 2018

Illumina, Inc.

- 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

Sep 2014 - Nov 2017

Illumina, Inc.

- 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
- linkedin.com/in/matthewgalvin
- github.com/galvinma
- twitter.com/galvinmath