MATTHEW GALVIN
SOFTWARE ARCHITECT

OVERVIEW

Proven technical lead with over eight years of experience in biotechnology and healthcare. I have a professional background in bioinformatics, data analysis, and software architecture with expertise in product development and engineering management. My research interests include human health, equity, and philosophy.

EXPERIENCE

Dana-Farber Cancer Institute

Software Architect   *Aug 2022 - Present*
- Engineering team lead for the MatchMiner project.
- Python machine learning in support of precision oncology efforts.
- ETL pipeline development and deployment.

Project Management, Airflow, Angular/React, Postgres, MongoDB

Invitae

Bioinformatics Pipeline Engineer   *Jun 2021 - Jul 2022*
- Whole genome pipeline development.
- Germline variant calling and data analysis.
- Maintence and on-call support for reproductive health pipelines.

HPC, Python, Singularity, Shell Scripting

Providence Health & Services

Bioinformatics Scientist   *Nov 2020 - Jun 2021*
- Whole exome & T/N pipeline development.
- Bulk/scRNA data processing & machine learning.
- Analysis and curation of AACR Project GENIE data.

AWS, Docker, Python, R, Shell Scripting, Nextflow, IGV

Genomics Software Engineer   *May 2019 - Nov 2020*
- Oncogenic pipeline development and data analysis.
- Full stack web development.
- Application owner and engineering mentor.

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

Illumina, Inc.

Engineer, Life Cycle Management   *Nov 2017 - Apr 2018*
- Manufacturing software automation solutions.
- Vendor quality control and cost management.
- Establish software best practices with manufacturing partners.

Project Management, Manufacturing, Python, Shell Scripting, SAP

Software Test Engineer   *Sep 2014 - Nov 2017*
- Lead software test engineer for mid-throughput sequencers.
- Engineering management and product planning.
- Instrumentation software verification and validation.

Product Management, Genomics, Test Driven Design, JIRA, JAMA

EDUCATION

B.S. Chemical Engineering
Oregon State University, 2014

LANGUAGES

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

SKILLS

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

LINKS

- matthewrgalvin.com
- linkedin.com/in/matthewrgalvin
- github.com/galvinma
- orcid.org/0000-0003-2040-8567