MARTIN J FRIGAARD

Linux Administrator | Shiny App Developer | Instructor

01+503-333-0531 • mjfrigaard@pm.me • https://www.linkedin.com/in/mjfrigaard/ • https://github.com/mjfrigaard

Experience

BioMarin Pharmaceutical Inc (Redbock)

Senior R/Shiny Developer — 05/2026 - Present

BioMarin develops treatments for rare, life-threatening genetic diseases.

- Improved operational efficiency by developing applications for system administration processes and duties
- Assisted with infrastructure upgrades for R and Python in a regulated environment

Centers for Disease Control and Prevention (BluOmega)

Posit System Administrator, R Subject-Matter Expert (SME) — 03/2024 - 03/2026

Healthcare and IT Services Firm

- **Designated mission-critical** owner for CDC's EDAV Posit platform during the 43-day federal government shutdown (Oct–Nov 2025), maintaining high availability of 1000+ production deployed apps, background jobs, and scheduled analytics
- **Facilitated User Training & Support:** Delivered ongoing technical support and conducted regular training sessions for analysts and data scientists, improving user adoption rates and resolving 95% of user issues within 24 hours
- See example training topic: h**ttps://mjfrigaard.github.io/posts/py-apps**
- **Automated Monitoring & Maintenance:** Developed automated monitoring and alerts for Posit services infrastructure, reducing downtime by 25% and minimizing manual intervention required for maintenance
- **Cross-Functional Collaboration:** Collaborated closely with data science teams to ensure the Posit ecosystem integrated seamlessly with existing enterprise systems and workflows, increasing cross-functional efficiency by 15%

Paradigm Data Group, LLC

Co-founder, Data Scientist — 04/2019 - Present

Data science solutions and training

- Provide data analytic solutions and application development from **Posit certified instructors** for 10+ clients
- Deliver custom trainings on data management, analysis, visualization, and **Shiny** application development
- Example client workshop: **https://mjfrigaard.github.io/ph-lacounty-r/**
- Example client application: **https://chicodatascience.shinyapps.io/CFO_SOW_Dashboard_FFY22-24/**

Atorus Research

Data Visualization Engineer — 12/2022 - 11/2023

Atorus provides open-source clinical data science solutions.

- Technical lead for 10+ Quantitative Decision Making (QDM) **Shiny** applications and R packages using **Posit Connect**
- Developed and delivered training materials for advanced **Shiny** applications and R packages with **Posit Workbench** and **Posit Cloud**
- Created methods for developing internal R packages containing **Shiny** applications
- Example training materials: **https://mjfrigaard.github.io/dev-test-shiny/**

BioMarin Pharmaceutical Inc (Redbock)

Senior Clinical Programmer — 09/2020 - 12/2022

BioMarin develops treatments for rare, life-threatening genetic diseases.

- Designed and deployed **Shiny** applications for Centralized Statistical Monitoring (CSM) group
- Created internal R packages for streamlining CSM **Shiny** application development
- Delivered 15+ training materials covering R programming, data processing, visualizations, and developing **Shiny** applications using **Posit Workbench** and **Posit Cloud**
- Example training materials: **https://mjfrigaard.github.io/bmrn-tutorials/**
- Example application: **https://mjfrigaard.github.io/dfdiffs/**

California State University, Chico

Instructor — 08/2021 - 12/2022

Journalism 301 (Data Journalism) is an upper-level 16-week data visualization, critical thinking and research course

- Designed course syllabus, lecture content, and assignments
- View previous course website: **https://mjfrigaard.github.io/FA22-JOUR301/**

Experience

Quesgen

Shiny App Developer — 07/2018 - 10/2020

Lead developer for the Diabetes Technology Society's (DTS) Blood Glucose Monitor Surveillance Program

- The application displays a 3-dimensional interpretation of the risk based on 200+ experts in diabetes care
- Application: **https://www.diabetestechnology.org/seg/**

Storybench

Author (Data Journalism in R) — 08/2016 - 06/2020

Storybench is a blog featuring digital storytelling tips, tricks, and takeaways from Northeastern University's School of Journalism.

- Developed and published the R/data science tutorials
- 2019 shortlist for GEN Data Journalism Website of the Year
- Communicated statistical methods to non-technical audiences
- Writing examples: **https://www.storybench.org/author/martinfri/**

Education

University of California, San Francisco — 2015 - 2017

Clinical Research (Master's Degree)

California State University, Chico — 2009 - 2011

Kinesiology (Master's Degree)

California State University, Chico — 2007 - 2009

Exercise Physiology (B.Sc.)

Additional Experience

US Army

Operation Enduring Freedom

Combat Medic/Healthcare Specialist (NCO) — 2001 - 2007

- Administered emergency medical treatment
- Evacuated casualties to medical facilities for more advanced care
- Monitored patients during transportation
- Assisted with outpatient and inpatient care and treatment

Non-commissioned officer responsibilities:

- 1) Ensured the discipline, morale, and welfare of subordinates
- 2) Upheld NCO Creed ("*No one is more professional than I.*")
- 3) Provided training and mentoring junior medics

Skills

Statistics · Epidemiology · Research · Data Visualization · Data Management · Application Development · Testing · Public Speaking · Technical Writing

Technological Expertise

R



Shiny App Development



Data Visualization



GitHub (Enterprise)



SQL programming



Python



Software

Shiny App Packages (shinypak)

https://mjfrigaard.github.io/shinypak/

Support package for Shiny App-Packages book

- Link to book: **https://mjfrigaard.github.io/shiny-app-pkgs/**
- Contains 30+ application demos of the full application development cycle (modules, tests, documentation, etc.)
- Demonstrates popular Shiny frameworks (golem, leprechaun, and rhino) and novel functions for detecting R packages vs. Shiny app-packages

USDA/SNAP/CalFresh Outreach Dashboard

https://chicodatascience.shinyapps.io/CFO_SOW_Dashboard_FFY22-24/

Web application for monitoring USDA/SNAP grant progress

- Integrated data for 20+ subcontractors throughout the state of California
- Users can view overall performance metrics by county, take notes with Markdown, and download a customized PDF or Word report

Clean call stacks in R

https://mjfrigaard.github.io/stackcallr/

R package with static-analysis utilities for Shiny applications and R packages

- Parses functions and prints a plain-text call tree
- Shows how functions relate to one another for writing documentation or submitting issues

Surveillance Error Grid (Shiny App)

https://www.diabetestechnology.org/seg/

The Surveillance Error Grid (SEG) is a graphical tool for clinical risk assessments of blood glucose monitor errors.

- The application assigns a unique risk score to each blood glucose monitor data point when compared to a reference value based on input from 200+ diabetes clinicians.

Selected talks, books, and publications

R/Pharma workshop — 2023

Developing & Testing Your Shiny Application

https://mjfrigaard.github.io/dev-test-shiny/

Workshop materials for R/Pharma presentation that covers developing a Shiny application as an R Package (with a focus on writing efficient tests).

Shiny App-Packages: Getting your Shiny app into an R package — 2022 - Present

https://mjfrigaard.github.io/shiny-app-pkgs/

An open-source book for developing Shiny applications as R packages.
Accompanying R package: **https://mjfrigaard.github.io/shinypak/**

Clinical Journal of the American Society of Nephrology — 2020

Screening for CKD To Improve Processes of Care among Nondiabetic Veterans with Hypertension

Carmen A. Peralta, Martin Frigaard, Leticia Rolon, Karen Seal, Delphine Tuot, Josh Senyak, Lowell Lo, Neil Powe, Rebecca Scherzer, Shirley Chao, Phillip Chiao, Kimberly Lui, Michael G. Shlipak, and Anna D. Rubinsky

Pragmatic, cluster-randomized trial to evaluate feasibility and preliminary effectiveness of screening for chronic kidney disease (CKD). **DOI: 10.2215/CJN.05050419**

Ojo-publico — 2020

Treating Covid-19: When enthusiasm trumps evidence

Martin Frigaard & Aleszu Bajak

https://ojo-publico.com/1903/treating-covid-19-when-enthusiasm-trumps-evidence

A report on several COVID-19 treatments in use throughout Latin America. Covers side effects, adverse reactions, new clinical trials, current clinical evidence, and interviews from doctors in Peru, Brazil and the United States.

Awards

- Army Commendation Medal (ARCOM)
- Army Good Conduct Medal
- University Dean's List

Key Achievements

Military service
Proud to serve as a medic in the US Army Reserve during Operation Enduring Freedom

Tenacity & persistence
Self-taught programmer (R, SQL, & Python)

Constant self-improvement
I seek input and welcome feedback on my work and performance

References

Anish Prasanna | Machine Learning Engineer | Booz Allen Hamilton — **Email:** anishprasanna7@gmail.com **Phone:** (240) 477-0391

Vadim Tantsyura | Sr. Director, Data Quality Science and Programming | BioMarin — **Email:** vadim.tantsyura@gmail.com **Phone:** (203) 233-5859

Aleszu Bajak | Director of Data Visualization | Urban Institute — **Email:** aleszu.bajak@gmail.com **Phone:** (216) 644 - 1952