

Fernando Gelin

/fəˈnændəʊ ɡɛlɪn/

Senior Research Software Engineer

github.com/fernandogelin

fernando@fernandogelin.com

Work

Brown University - Center for Computation and Visualization

Senior Research Software Engineer

October 2019 – present

At the Center for Computation and Visualization at Brown University, I build, deploy, and maintain custom web applications to support research scientists, students, and the community. Together with my team, I support a variety of projects from one-off applications to large distributed systems used by thousands of students. Moreover, I mentor our web development interns and engage them on using best practices to work collaboratively.

Brown University - Center for Computation and Visualization

Research Software Engineer

April 2018 – October 2019

As part of the Data Science Practice and then the newly created Center for Computation and Visualization, I worked closely with the Brown Center for Biomedical Informatics and the Computational Biology Core developing software solutions for data management, analyses, exploration, and visualization. Among these solutions, I created and collaborated to open-source software written in Julia. I also provided support to researchers and students with creation of self-contained computing environments using Docker/Singularity for Brown's secure computing ecosystem.

Brown University - Data Science Practice

Data Science Associate

November 2016 – April 2018

As part of the Data Science Practice, I worked with different groups at Brown on exploratory data analysis and machine learning, data visualization, web development, and software engineering. I primarily worked with the Rhode Island Innovative Policy lab analyzing and visualizing data that helped researchers to design and test data-informed policy.

University of Washington

Senior Research Fellow

May 2014 – June 2016

Analyzed human genome sequences using cutting edge bioinformatics tools such as GATK, Picard, BWA. Created data processing pipelines in Python. Created a R shiny app to explore and visualize variant data. Built a web application for our lab using ember to generate protocols and calculate reagent amount for targeted sequencing reactions.

Skills

Web Development

HTML, CSS/SASS, Javascript, Ember.js, Vue.js, Hugo, Node.js, Electron

Data Science & Visualization

Python, Julia, Jupyter, D3.js, SVG

Other

Docker, GCP, AWS, Github Actions, Firebase, Terraform, Ansible, Heroku

Education

Degrees

University of Vermont

PhD, Ecology and Evolutionary Biology

August 2009 – April 2014

Thesis: Phylogenetic analysis of three genera of swarm-founding Neotropical wasps (Hymenoptera, Vespidae, Polistinae)

São Paulo State University

M.Sc. Animal Biology

December 2007 – May 2009

São Paulo State University

BS. Biology

December 2002 – December 2006

Certifications

University of California San Diego / University of Washington

Certificate in Biotechnology Project Management

December 2014 – December 2015