

# ANNA LAMOUREUX

## FRONTEND SOFTWARE ENGINEER

🌐 anna-lamoureux.github.io    ↗ github.com/anna-lamoureux

5+ years focusing on frontend tech stacks in a wide array of research-based web applications in a professional setting and 7+ years of web design and development. Extensive experience in creating clean, practical interfaces to ingest or interact with genomic data. Well-practiced in learning new languages, frameworks and constantly keeping up-to-date with scientific domain knowledge.

## RELEVANT EXPERIENCE

THE JACKSON LABORATORY | Bar Harbor, ME

AUGUST 2017 - PRESENT

Scientific Software Engineer

- Organized and led a UX/UI working group as a collaboration of individuals from across the institution on a bi-monthly basis for design propositions, application feedback and general discussions on good practices for the last 4 years
  - Acted as the go-to Angular developer in the department and UI design expert for application redesigns, Angular technical questions, and frontend code or design reviews
  - Designed and developed multiple interfaces around a system intended for intake and curation of diversity outbred mouse study data and browsing of public and authorized private studies | *Angular, HTML/CSS, interacting with multiple APIs*
  - Designed and developed an application feature that allows users to enter one or more genomic regions and a set of desired strains to generate a SNP grid view of the results where users can opt to view SNPs based on their statistical confidence, if values are imputed | *Angular, HTML/CSS, interacting with multiple APIs*
  - Adopted, maintained and developed D3 features for a full-stack application that displays haplotype reconstruction visualizations for genotype data uploaded by users | *Javascript, HTML/CSS, D3, Flask Python, MongoDB*
  - Rearchitected a full stack application into a distributed application and led the frontend development that allows users to explore and interact with genomic synteny data between mouse and human species to support mouse-human research; the application resulted in a publication | *Angular, HTML/CSS, Javascript, D3, Flask Python, SQLite*
  - Joined a task force to secure and reinforce the intake process for a clinical portal handling COVID-19 test samples as capacity and capability increased to meet testing needs; led and organized a small team of interns to offer technical support and to ensure code quality and best practices | *Angular, interacting with .NET backend, Azure Devops*
  - Created a D3-based plot showing mutation events in a user-selected sample within phylogenetic trees and implemented authentication for an instance of Auspice containing COVID-19 data | *React, D3, Auth0*

MERCK CO/MORAVIAN COLLEGE | Bethlehem, PA

2015 - 2017

## Student Developer

- Worked as part of a senior capstone course to create a proof of concept "Internet of Things" system that would serve to assist Alzheimers patients and their caregivers in managing the difficulties of the disease (Spring 2017)
  - Worked as part of a summer academic team created a proof of concept "home health kit" that intakes health data originating from various sensors and devices and visualizes the data in a Python/Kivy application (Summer 2016)
  - Worked as part of a summer academic team constructed a map using D3 for visualizing state and national level of HA1C dose rates in the United States from Medicare billing data aggregated by DocGraph (Summer 2015)

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## SKILLS

## LANGUAGES & FRAMEWORKS

Angular, Typescript, Javascript (ES6),  
HTML, CSS/Sass, RxJS, Angular Material,  
PrimeNG, Eslint, Nx, Jest, Karma, Jasmine,  
Python, MongoDB

## TOOLS

Git, NPM, Unix Terminal, Atlassian (Bitbucket, JIRA, Confluence), Webstorm, Bitbucket Pipelines, Google Cloud Platform, Kubernetes, Bamboo, Github, Azure Devops

## DESIGN

Figma, Sketch, Adobe InDesign, Affinity Designer

## EDUCATION

MORAVIAN COLLEGE

2014 - 2017 | Bethlehem, PA

Bachelor of Science in Computer Science  
Minor in Mathematics, Magna Cum Laude

**Honors:** MCS<sup>2</sup> and Founders Scholar

**Notable Courses:** Graphic Design,  
Typography, Interactive Design

**Extracurriculars:** Summer SOAR Project  
collaborations with Merck Co., Math and  
CS Tutor, VP of Moravian AAUW, President  
of Moravian Computing Club

## PUBLICATIONS

Kolishovski, G., Lamoureux, A., Hale, P. et al. The JAX Synteny Browser for mouse-human comparative genomics. *Mammalian Genome* 30, 353-361 (2019). doi.org/10.1007/s00335-019-09821-4