

# ALYSSA FEGEN

## SKILLS

Data Analysis  
Software Engineering  
Scientific Research  
UX/UI/Web Design

## FRAMEWORKS

MongoDB  
Express  
AngularJS  
NodeJS  
jQuery  
Flask  
Shiny  
Heroku

## LANGUAGES

Python  
R  
SQL  
HTML/CSS  
Javascript  
Java  
C/C++

## DATABASES

Oracle  
MySQL

## SOFTWARE

Linux/Unix  
MacOS  
Windows  
Microsoft Office  
Adobe Suite  
Git  
Sublime  
Atom  
PyCharm  
RStudio  
Eclipse  
IntelliJ  
Vim

## WORK EXPERIENCE

### STATISTICAL ANALYST/PROGRAMMER

05/16 – 08/16

MS/MRI Research Group – CBH, UBC Hospital, Vancouver

- + Analyzed clinical trial data of 100 MS patients using the Mixed-Effects Model to evaluate the results of novel MS therapeutic
- + Attended weekly lab meetings to better understand the nature of MS, its treatments, and different MRI scanning techniques
- + Assisted with consenting and raising the awareness of current MS patients of the ongoing research projects at the clinic

### UNDERGRADUATE TEACHING ASSISTANT

01/16 – 04/16

UBC Department of Computer Science, Vancouver

- + Maintained course material to ensure effective teaching and advising of students and marking of assignments and examinations
- + Attended regular TA meetings with course coordinators to discuss and suggest ideas to improve current teaching practices
- + Involved students in learning during labs, encouraging them to try new ways of approaching problem-solving and to ask questions

### Undergraduate Academic Assistant

01/15 – 12/15

Nislow/Giaever Lab – UBC Faculty of Pharmaceutical Sciences

- + Created pipeline utilizing the Fisher test to find significant Gene Ontology (GO) term enrichments with the *Saccharomyces cerevisiae* genome to help identify novel chemotherapeutic targets
- + Utilized several R packages to clean and manipulate large data sets to prepare them for data analysis and visualization
- + Attended weekly lab meetings to present work and learn of ongoing research projects to better understand user requirements
- + Created and wrote documentation for an R Shiny application for the lab to conduct abstract enrichment pipeline

## EDUCATION

### BSc. Microbiology & Computer Science

09/12 – 04/18

The University of British Columbia (UBC) – Faculty of Science, Vancouver

## SELECTED PROJECTS

### EmoDemy

[emodemy.glitch/me](https://emodemy.glitch.me)

- + Worked in a team to create VR social simulator prototype to supplement Applied Behavioural Analysis therapy for high-functioning persons with Autism Spectrum Disorder

### bioSyntax

[biosyntax.org](https://biosyntax.org)

- + Worked in a team to create a syntax highlighting package for computational biology formats (e.g. fasta, SAM, VCF) across platforms and text editors and published an academic paper