

## Education

**2008 - 2013** University of Washington, Seattle, WA

**Bachelor of Science (Honors) Biochemistry -**

Minors: Applied Math; Bioethics

## Skills

<b>Languages</b>	Python (fluent), Java (proficient), Javascript / HTML / CSS (prior experience)
<b>Databases</b>	Mongo DB (proficient), SQL (prior experience)
<b>Libraries</b>	Pandas, Matplotlib, D3.js, NumPy
<b>Tools</b>	AWS (EC2, EMR, S3), Apache-Spark (prior experience), Bash, Git
<b>Domain Knowledge</b>	Natural Language Processing, Data Visualization

## Related Experience

**Recurse Center** (formerly HackerSchool)

May 2015 – July 2015

*Programming Sabbatical*

- Made an interactive visualization of Yelp restaurants in the Seattle Area using D3, Flask and Bootstrap
- Collected Yelp restaurant meta data from the Yelp API and scraped restaurant reviews for all restaurants in Seattle metro area, stored in MongoDB on AWS EC2 instance
- Used Apache-Spark to make restaurant review summaries and apply clustering algorithms to the Yelp reviews
- Made Twitter Bot that tweets a gif at users based on topic modeling via Latent Dirichlet Allocation
- Used AWS to store all geotagged tweets for a week from the Twitter Streaming API; used Python, Pandas, matplotlib and R map libraries to clean and visualize the data
- Implemented my own hash table in python

**Silver Creek Pharmaceuticals, San Francisco**

August 2013 – February 2014

*Intern*

- Streamlined assay data analysis using google spreadsheets to decrease experimental analysis time
- Designed and executed experiment to test our drug's mechanism of action and provide evidence for investors that our protein was behaving as we expected
- Produced engineered proteins, from ordering DNA fragments through protein purification

**Seattle Biomedical Research Institute- Myler Lab**

June 2012- December 2012

*Global Health Intern*

- Developed molecular biology protocols to isolate plasmid for Single Molecule Real Time (SMRT) sequencing
- Analyzed changes in polymerase velocity data (SMRT seq data) as part of a team
- Wrote scientific paper (senior thesis) presenting conclusions from SMRT seq data based on my experiments which may lead to changes in drug development for the tropical disease, *Leishmania*

## Other Work Experience

2012-2013, **Undergraduate Research Leader (Volunteer)**, University of Washington Research Program

2013, **Research Technician**, University of Washington Genome Sciences

2013, **Chemistry Teaching Assistant**, University of Washington

2012-2013, **At-Large Campus Director (Volunteer)**, Learning Enterprises, Seattle

2010-2012, **Undergraduate Research Assistant**, University of Washington Microbiology

2011, **English Teacher (Volunteer)**, Learning Enterprises, Romania and Croatia

## Awards

2013-2014, **Bonderman Travel Fellow**, University of Washington

2012, **Undergraduate Research Grant Recipient**, Levinson Emerging Scholars

*-Designed and conducted research on HIV-1 evolutionary trends in women*

2012, **1<sup>st</sup> Place**, UW Bioethics Case Competition

## Publications

- Defining the sequence requirements for the positioning of base J in DNA using SMRT sequencing (Genest, et. al), 2015
- Quantitative interactome analysis reveals a chemoresistant edgeotype (Chavez, et. al), 2015