

Abraham Miller

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The only thing that will redeem mankind is cooperation.
– Bertrand Russell

Education

University of Washington, Seattle

September 2015 – March 2019

BS/BA Double Degree, Computer Science and Philosophy

Completed 16 CSE Courses, 11 Intensive Writing Courses – 3.66 GPA

Relevant Skills From Coursework

My project-based academic path prepares me with knowledge of *data structures, algorithms, machine learning, time and space complexity, OO and functional programming, OS design, Unix CLI; and the Java, C, C++, Python, Ruby, and JavaScript programming languages.*

Work Experience

Ginkgo Bioworks - Boston, MA

June 2019 – September 2019

Software Engineer Intern

Add set of features to the laboratory automation and data management system which improve user experience and help form an abstraction barrier that enables higher level workflow design than before. The Ginkgo codebase is written in *React, Python, and Ruby on Rails*.

Klavins Lab - Seattle, WA

July 2017 – December 2018

Software Engineer Research Assistant

Develop and maintain *Aquarium*, a holistic laboratory management system intended for synthetic biologists, made with *Ruby on Rails* and *Angular*. As well, programatically encode laboratory procedures within a *Ruby DSL* to help researchers design automatable, high-throughput experiments, and aid with extracting and processing data from these experiments using *Python*.

Center for Learning and Undergraduate Enrichment - Seattle, WA

March 2017 – June 2017

University Logic Educator

Lead weekly class discussion sessions on elementary symbolic logic for UW students taking PHIL120 (Intro to logic). Topics include *functions, predicates, relations, quantifiers, soundness, completeness, and sets*.

Pipeline Program - Seattle, WA

January 2017 – March 2017, April 2019 - May 2019

K-12 Educator

Create lesson plans and teach philosophy and genetics to 2nd graders and 9th/10th graders respectively as part of a UW college to highschool volunteer program.

Projects/Extracurriculars

Enfin: Environmental Finance Management

January 2019 – Present

Fintech Webapp

Devise and implement application which evaluates a user's financial history to provide analysis of their carbon footprint. Additionally, provides personalized suggestions for reducing emissions and streamlines the carbon offset donation process. Created with *React, Express.js*, and the *Plaid API*.

Polymerase Chain Reaction Batching Optimizer

August 2018

Ruby Gem for Biologists

Invent bottom-up clustering algorithm in *Ruby* for grouping together PCRs with similar reaction conditions so that they can be run in the same thermocycler. Exploits *gradient PCR* to maximize reactions per thermocycler. At the UW BIOFAB, over 200 reactions per month are rendered more efficient by this program. Created while working at Klavins Lab.

Impact Fellow - New York City, NY

January 2019

Tech For Social Good National Fellowship by Impact Labs (<5% acceptance)

UW Toastmasters Member - Seattle, WA

September 2019 – Present

Public Speaking and Leadership Club

Phi Beta Kappa Member

May 2017 – Present

America's Oldest and Most Prestigious Academic Honor Society