

Why Spotify?

- As a longtime musician and singer, I actively record, perform, and take lessons
- As a CS major and musician, I am building a web-based musician's feedback service
- I love Spotify and have been an avid daily user for many years

Education

Rice University

- Computer Science, graduating May 2021, GPA: 3.21

2017 - present
Houston, TX

Westwood High School

- GPA: 4.0/4.0 (5.58/5.0 weighted), National Merit Scholar, Graduated May 2017

2013 - 2017
Austin, TX

Conference Presentations

PyoFuel: Using Python and Pathway Tools to engineer synthetic biofuel

Sole Author

[more](#)

Dec 2016
Colorado

- Int'l. Soc. for Computational Biology / Rocky Mountain Bioinformatics Conference (poster session)

Projects

Lentil - A Musician's Feedback Service

Independent Project

[repo](#)

[demo](#)

Summer 2018 - present

- Conceive, design, and implement a web-based musician feedback service (ReasonML + React)
- Musicians submit recordings of performances and receive pointed feedback from teachers

Physics Sunset

Independent Project

[repo](#)

[demo](#)

Summer 2017

- Design and implement browser-based interactive graphical simulation of a physics problem (ReasonML)

Disease Transmission Analysis

Spring 2018

- Design and implement rooted-directed minimal spanning tree algorithm (Python)
- Analyze genetic + epidemiological data from 2011 disease outbreak to infer the disease transmission tree

DNA Sequence Alignment

Spring 2018

- Design and implement DP solutions to two DNA sequence alignment problems (Python)
- Align human and fruit-fly protein sequences to identify the PAX domain within the "eyeless" gene

Phylogenetic (Evolutionary) Trees

Spring 2018

- Infer the optimal evolutionary tree, given DNA sequences for the leaf taxa (Python)

Hidden Markov Models and Part-of-Speech Tagging

Spring 2018

- Implement statistical learning of HMM using training corpus of pre-tagged sentences (Python)
- Implement Viterbi algorithm to assign part-of-speech tags to new sentences using trained HMM

Chef Arduino

Independent Project

[repo](#)

2010 - 2011

- Conceive, design, build, and program an Arduino-based robot to test properties of food samples

Software Development Skills

Programming Languages & Frameworks

2013 - present

- Proficient: Python, Java, ReasonML/OCaml, React
- Basic: C, Racket, Pyret, Elm, Html, Numpy

Software Design

2013 - present

- Systematic Program Design - Designing Data & Functions, EdX course based on HtDP2
- Functional programming with types

Software Testing

2017 - present

- Test-driven development, unit-tests, property-based tests
- Python testing using Pytest, Java testing using JUnit 5 & QuickTheories

Work Experience

UT Austin Summer Research Academy - College of Natural Sciences	<i>Summer Intern</i>	2015, 2016 Austin, TX
<ul style="list-style-type: none">• DNA extraction, splicing, and recombineering of the DHX35 gene using E. coli• Worked with Dr. Al Mackrell in the Vertebrate Interactome Mapping Lab• Conducted computational Flux Balance Analysis on cyanobacteria engineered for biofuel		

Organizations and Activities

• CSters: Women in Computer Science, Rice University	2017 - present
• CS Club, Rice University	2017 - present
• Society of Women Engineers (SWE), Rice University	2017 - present
• SASE: Society of Asian Scientists and Engineers, Rice University	2017 - present
• Club Tennis, Rice University	2017 - present
• Music: sing, record, perform, take lessons soundcloud youtube	2007 - present
• PyLadies: Austin community of women Python programmers, team programming, presentations	2015 - 2017