

DANIEL WILKINS

P. 503-608-9231 11danielw@gmail.com [LinkedIn](#) [Github](#) [Portfolio](#) San Francisco / Bay Area

SKILLS React.js, Python, JavaScript, Redux, Node.js, Flask, Express, SQL, Git, HTML5, CSS3, R, Docker, SQLAlchemy, PostgreSQL, Linux OS, TCP/IP

EXPERIENCE

Applications Developer/Analyst (Python, Amazon Web Services, R, Matlab)

Hunter Lab, Yerkes Primate Research Center, Emory University, December 2015 - August 2018

- Developed a bioinformatics pipeline by integrating a Matlab statistical suite with Python Pacific Biosciences informatics tools to differentiate novel DNA sequences in HIV genomes
- Designed algorithm to identify new alleles from sequencing data by incorporating MAFFT alignment and custom sequence quality tools to compare data with well documented sequences.
- Deployed a compiled Matlab application to a scalable AWS environment to allow parallel processing of jobs for internal lab member use.
- Automated batch file processing with bash scripts to allow overnight queueing of jobs with different protocols
- Implemented algorithms between multiple programming languages seamlessly
- Debugged and refactored legacy algorithms to improve extensibility
- Planned, budgeted, and constructed appropriate hardware for local computationally intensive projects

PROJECTS

EverQuote

[Live Site](#) | [Github](#)

A site inspired by Evernote.com (ReactJS, Redux, Sequelize, Express)

- Incorporated modal forms by implementing a Redux store user interface state to control component display to allow users to access notebook controls without reloading.
- Devised selective and flexible user content displays with Flask routing and SQLAlchemy queries to allow users to access their own materials organized by most recent edits and separated into user-made collections.
- Incorporated Rich Text Editing storage and parsing to provide plain text previews for Rich Text elements.

Book of Ancient Secrets

[Live Site](#) | [Github](#)

A portal for making and playing choose your own adventure games (React, Redux, Python, Flask, SQL, HTML5, CSS3)

- Reduced calls to the database by loading user data to the redux store on login, and updating the store directly upon database changes, lowering the number of SQL queries required.
- Enhanced error feedback by using Flask forms populated from React frontend routes to return Flask validation errors to the user for detailed database error messages.
- Created efficient many-to-many relationships between event pages to allow users to conveniently add links from one page to another.

Queryou

[Live Site](#) | [Github](#)

A clone of the popular site Quora.com (JavaScript, Express, SQL, HTML5, CSS)

- Streamlined page loading by using AJAX to asynchronously display elements upon user interaction, providing a refresh-free experience for users after engaging with the site.
- Integrated persistent user login utilizing a JSON Web Token and CSRF protection to allow users to remain logged in while offline, and to allow users to immediately access the site upon returning.
- Utilizes an Express backend API to organize and separate endpoints.

Eatup

[Live Site](#) | [Github](#)

A portal for making and playing 'choose your own adventure' games (React.js, Redux, Python, Flask, SQL, HTML5, CSS3)

- Organized maintainable code by creating reusable React subcomponents, allowing future developers to add consistently styled and modular features.
- Simplified database querying with inclusion, causing users' information to be loaded together rather than separately, reducing overhead.
- Delineates between event hosts and guests with backend permissions.

EDUCATION

App Academy - Immersive software development course with focus on full stack web development (Summer 2020)

Emory University - BS - Biology (Spring 2015)

Emory University - PhD Student - Population Biology, Ecology & Evolution (Fall 2018 - Spring 2020)