Jennifer Yip

Email jenniferyip@berkeley.edu **Phone** (925) 520-5721
Skills Python, Java, SQL, Ruby on Rails, HTML, CSS

EDUCATION

University of California, Berkeley (Berkeley, CA) Expected Graduation: 05/2018
Bachelor of Arts, Computer Science Cumulative GPA: 3.5

Technical Coursework: Structure and Interpretation of Computer Programs, Data Structures, Machine Structures, Discrete Math, Software Engineering, Databases, Linear Algebra, Biochemistry

WORK & COURSEWORK EXPERIENCE

Work & Research

Banfield Laboratory (Berkeley, CA) **Undergraduate Research Assistant** *09/2015 - present*
Multiple sequence alignment program for CRISPR spacers using the Needleman-Wunsch algorithm Python, R
Building visualization of dataset for later analysis of bacterial strain microevolutions and comparative genomics
Contributed to data collection (next gen. sequencing) in Human Microbiome Project observing gut colonization
Analysis of data outputs of various bioinformatics pipelines (QIIME, DADA2)

Lawrence Livermore National Lab (Livermore, CA) **Computation Intern** *05/2016 - 08/2016*
Designed and built pathogen analysis toolkit to detect for signs of genetic engineering Python, HTML, CSS
Consolidated genomic data from multiple databases to determine impact of gene composition on virulence
Implemented user-friendly interface to display observed bacteria's gene profile and threat characterization
Presented poster at Northern California Computational Biology Student Symposium & LLNL Summer Symposium

Class & Other Projects

California Poets in the Schools (Software Engineering Class Project) *Fall 2016*
Working with non-profit client to develop web application through agile methodology iterations Ruby on Rails
Building publishing platform that provides automation and regulation of content uploaded by site users

B-Plus Tree Database (Databases Class Project) *Fall 2016*
Managed storage/retrieval of fixed length records on pages and implemented B-Plus Tree structure Java

Gitlet (Data Structures Class Project) *Fall 2015*
Implemented miniature version control with similar features to git – commit, log, branch, merge Java

EXTRA CURRICULAR ACTIVITIES

Service

ANOVA – Technology Committee **Teaching Assistant/Web Developer** *09/2016- present*
ANOVA introduces computer science topics to middle/high school students in under-resourced communities
Introducing HTML/CSS to students in after school programs at Claremont Middle School (Oakland, CA)
Pair programming work to restructure and redesign ANOVA's web pages using Ruby on Rails

UC Berkeley CS61A **Lab Assistant** *05/2015-08/2015*
CS61A is an introductory computer science class that covers abstraction, trees, recursion, inheritance
Assisted students in Office Hours with homework, labs, projects, and test preparation

Student Organizations

AWE (Association of Women in EECS) **Treasurer** *01/2016 - present*
AWE creates a safe and supportive community for women interested in computer science
Planning events, creating and managing budget, handling reimbursements and invoices

Align: Undergrad Society for Computational Biology **Co-Founder** *11/2015 - present*
Align increases awareness of computational biology through workshops and professional development events
Organizing club activities, managing public relations, and increasing online presence through social media