XINYU WU

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EDUCATION

University of Southern California 2022.08-present
MS in Computer Science GPA: 3.92/4.0
Zhejiang University-University of Edinburgh Institute 2018.09-2022.06
BS in Biomedical Informatics GPA: 3.77/4.0

WORK EXPERIENCE

Research Assistant (student worker) at Prof. Jian Liu's lab
Haining, Zhejiang, China 2020.10-2022.10

- Contributed to the development of CancerOmics3D, a Web Database for Human Cancer Genomics Data
- Conducted genomic data analysis using Python, Perl, and R
- Engaged in back-end development, modified and recompiled the source code of UCSC Genome browser for CGI execution, stored genomics information with MySQL
- Led the front-end development, designed and built web pages with HTML, JavaScript, PHP, CSS, Bootstrap, and Vue.js

PROJECT

Backend for Bear Maps [link]
Course Project of CS61B: Data Structures 2023.06

- Generates image for a viewing rectangle given the longitude and latitude of the upper left and lower right vertex
- Route search with A* algorithm
- Autocomplete location names with a Trie

Yelp Search App for Web [link] and Android [link] Platforms
Course Project of CSCI571:Web Technologies 2022.10-2022.12

- This app enables users to discover nearby businesses, access their details, locations, and reviews
- The Android and web versions of the app share a common backend, which sends XHR requests to the Yelp API
- The Android frontend was developed using Android API 31, while the web version was built using Angular and Bootstrap

Retina Scan: classify images to detect glaucoma [link]
Course Project of BIA4: Biomedical Image Analysis 4 2021.12

- Glaucoma detection using a CNN based on blood vessel properties and the optic disk (OD)/ optic cup (OC) ratio
- Segmenting blood vessels and determining their properties (length, tortuosity, etc.) using skeletonization
- Segmenting and localizing the OD and OC with a multi-label U-net

Precision Medicine Matching System [link]
Team Project of Database and Software Technology 2 2020.05

- A web app that searches for potential medicine based on patients' genomic variation
- Utilizes web crawler to update annotation about medicine from online database
- Allow registered users to view samples shared by other users; they can also choose to keep a sample private
- Developed with Spring framework, PostgreSQL and LayUI

TECHNICAL SKILLS

Programming Languages: Java, Python, C++, JavaScript, TypeScript, HTML5, CSS, R, Perl
Tools: IntelliJ, Angular, React, Bootstrap, Vue.js, node.js, MySQL, PostgreSQL, MongoDB, Android Studio, scikit-learn, jQuery, Maven, Apache Tomcat, Flask, Google Cloud Platform, Amazon Web Service