Jiarun (Rachel) Li

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EDUCATION

University of California, Los Angeles, Los Angeles, CA   Expected June 2022
Bachelor of Science, Computer Science
- Cumulative GPA: 3.6/4.0
- Relevant Coursework: Scalable Internet Services, Algorithms, Data Structures, Data Science, Artificial Intelligence
- Honors: Dean's Honors List (spring 2020)

PROFESSIONAL EXPERIENCE

Tencent • *Research Intern* • Shenzhen, China   May 2020 - July 2020
- Monitored heart rate remotely, using photo-plethysmography signals, with novel non-invasive and passive monitor techniques
- Measured RGB channels in areas of forehead and cheeks, acquired signals, and generated heart rate measurements
- Processed signals by applying a Butterworth filter to remove noises, and using fourier transform to calculate signal frequency
- Utilized **JavaScript** and **Bootstrap** for user experience. Integrated **TensorFlow** trained facemesh model to improve accuracy

Motigo • *Ebook Development Intern* • Shenzhen, China   August 2019 - September 2019
- Created four interactive Ebooks on the platform WeChat to help Motigo exploring new potential businesses
- Used a combination of **Python**, **HTML** and **CSS** to implement ebooks, with over 1000 views overall and an average viewing time of over 2 minutes. Topics include psychology, traveling, broadway musicals and personality testing
- Designed user interface and analyzed user experience of each product through researching targeted user group characteristics, analyzing user data feedbacks, and highlighting the advantage of interactive ebook

PROJECTS

Cipher Salad   January 2020 - April 2020
- Created a cybersecurity lesson with ACM Cyber and Teach LA to teach kids the history of secret messages and modern ciphers
- Incorporated **React.js** for frontend layout, **Bulma** and **SASS** for styling and design, **Anime.js** for animation
- Hosted the web-based mini lesson on **Netlify** and connected to **Firebase** for storing and sharing ciphers
- Taught **Python** to students at Sepulveda Middle School every Thursday

Data Flow   June 2020 - September 2020
- Built a fast and interactive debug console that creates a diverse set of charts for large scale csv, json, and xml input (>10k entries)
- Analyzed offsets, ID, variables properties, and entry size used for forwarding technology for compilers
- Constructed the console with **JavaScipt**, **JQuery** and **Ajax** for file parsing, and **Chart.js** for producing graphing.
- Extracted bitwise content in ELF files and replaced with patch files for version improvement

Tour.AR   January 2020 - March 2020
- Developed an iOS app, in a group of 7, that aims to improve visitors' experience when touring UCLA with an augmented reality Bruin introducing the various places on campus
- Implement page loading and page transitions using **Swift** through **Xcode**
- Fabricate rendering method for loading area-based introduction text based on core location detection
- Designed loading page and home screen using **Figma.** Resolved size conflict and made it responsive on different iOS devices

Gee-nomics   March 2019
- Developed a project that can edit and store genome/DNA sequences, and allow users to present the genome of a new organism and identify all genomes with a high percentage of matching DNA in the library
- Designed searching and matching algorithms using **object oriented programming** with efficient time complexity using **C++**
- Maintained a library of genomes using data structures such as **Trie**

SKILLS

Technical Skills: C++, Python, C, Java, JavaScript, HTML, CSS, Linux, Git, JQuery, Reactjs, Swift
Language Skills: Fluent in English and Mandarin. Intermediate in French