

# Jessica Chen

jessicayqchen@ucla.edu | (650)-338-9995 | linkedin.com/in/jessicayqchen | GitHub: @jessicaychen | jessicaychen.me

## EDUCATION

**Computational & Systems Biology (Data Science Concentration), B.S. – UCLA**      Grad: Spring 2022

- Statistics Minor
- Relevant Coursework: Intro C++, Data Structures, Intro R, Discrete Math, Linear Algebra, Differential Equations, Mathematical & Biological Modeling, Data Analysis & Regression
- Knights Templar Eye Foundation Travel Grant, UCLA Achievement Scholarship, UCLA Regents Scholar
- GPA: 3.96

## EXPERIENCE

**Undergraduate Researcher – Advanced Robotic Eye Surgery Lab, UCLA**      August 2019 – Present

- Scripting an algorithm in MATLAB to perform real-time image segmentation and data processing of OCT volume scans to model the retina and extract the coordinate of a certain feature with user input, implemented in a prototype for robotic eye surgery.
- Utilizing averaging of image planes, masking, biasing, Gaussian blur, surface fitting, and removal of outliers to denoise scans and optimize segmentation.

**Undergraduate Researcher – Ocular Motility Lab, UCLA**      October 2018 – Present

- Wrote Python scripts to process and segment blood vessels in cSLO images for machine learning.
- Cleaned clinical research using Excel and performed statistical analyses using SPSS and R, visualized data in GraphPad Prism and interpreted trends.
- Collaborated with graduate students, international clinical fellows, and expert physicians on research projects resulting in poster presentations and 5+ publications.

## LEADERSHIP

**Publicity Director – SWE-UCLA Executive Board**      April 2020 – Present

- Managed all social media platforms, designed and presented all forms of promotional media to advocate for diversity and mentorship of young engineers.

**Event Manager – SWE-UCLA Mentorship Committee**      September 2019 – April 2020

- Brainstormed and coordinated mentorship events such as panels for students.
- Networked and communicated with industry representatives to speak at events, moderated and wrote prompts to direct the flow of the talk.

## SELECTED PROJECTS

**World Air Quality Index: Coronavirus Project**      June 2020

- Accessed the WAQI JSON API to extract air quality data, wrangled the data using Python and Pandas, visualizing the data using Plotly over time to show effects of reduced global mobility on air pollution.

## SKILLS

- Computer: Python (Pandas, Matplotlib, NumPy, OpenCV), MATLAB, C++, R, SQL, HTML, CSS
- Software: Photoshop, Illustrator, IBM SPSS, Excel, GraphPad Prism

## INTERESTS

- machine learning, computer vision, image processing, data analytics, improving the world through R&D