Phoebe Ly

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EDUCATION

University of California, Riverside (UCR)   **June 2017 - June 2021**
Bachelor of Science, Major in Statistics, Minor in Computer Science   **GPA: 3.60**

TECHNICAL SKILLS

Languages: Proficient in R and C++, Experience with Python, SAS, MATLAB, HTML, CSS, SQL
Software: RStudio, Google Earth Engine, Tableau, Minitab, Metabase, Zoom
Relevant coursework: Data Structures & Algorithms, Discrete Math, Nonparametric Techniques, Linear Algebra, Optimization, Probability and Statistical Theory, Time Series Analysis, Regression Analysis, Software Construction
Average typing speed: 95 wpm

WORK EXPERIENCE

Student Researcher, Center of Food Security & Environment, Stanford University   **June 2021 - present**
- Researching under Professor David Lobell in Earth System Science
- Funded by the Stanford Summer Undergraduate Research in Geoscience and Engineering (SURGE) program — a competitive nationwide program (17 students selected out of ~250)
- Combined remote sensing and mobile phone data to quantify micronutrient deficiencies in farmers' fields in India
- Used Python to scrape data tables from the Soil Health Card from the Government of India
- Extracted data and calculated various vegetation indices, created maps/graphs, applied a train-split technique to build statistical model
- Wrote a scientific abstract and will be presenting a poster at the American Geophysical Union Conference in December 2021

Student Researcher, Soil Biogeochemistry Lab, UCR   **September 2019 - July 2021**
- Researched under Professor Samantha Ying in Environmental Science
- Performed big computations with X-ray Fluorescence data to analyze trends in soil
- Automated the production graphs that are easy to understand for those who have little statistical expertise
- Managed to work in an interdisciplinary team and learn about an unfamiliar field
- Assisted in a number of other projects that required data cleaning and analysis

Data Analyst Intern, CoGrammar/HyperionDev, Cape Town, South Africa   **June 2019 - August 2019**
- Developed a system that automatically generates dashboards and charts every week to track company progress
- Created organized reports of all analysis findings in R
- Revised and reformatted the company's Software Engineering Bootcamp and Data Science Bootcamp courses to enhance student education
- Explored different data visualization tools such as Metabase and Tableau to find the most efficient and low-cost way to communicate analysis to employees
- Learned about a new culture by living in a different country

WORKING PAPERS

- A Remote Sensing Approach to Quantify Chlorosis in Farmers' Fields
  - *With David Lobell, Hemant Pullabhotla, and Claire Morton*
- Contribution of Plant Canopies to Soil Organic Carbon Along an Elevation Gradient
  - *With Samantha Ying and Thomas Haensel*

UNDERGRADUATE PROJECTS

UCR Healthy Campus Initiative 3-Year Longitudinal Survey Analysis   **December 2020 - February 2021**
- Led a group of 15 undergraduate students to perform data analysis for a on-campus initiative
- Cleaned messy and inconsistent big data across three years for analysis
- Mass produced side-by-side bar charts to compare faculty, staff, and students' attitude and perception on health programs, as well as individual health

- Held coding sessions on independent time to guide peers
- Met time deadline despite working under pressure

Assessing Effects of COVID-19 on Undergraduate Students, UCR Dept. of Statistics   **November 2020**
- Led a team of 8 students to carry out the analysis
- Surveyed students studying Statistics and Data Science to help the Statistics Department better understand how to help them during the COVID-19 pandemic
- Generated descriptive statistics regarding students' feelings towards online schooling, housing situations, and mental health
- Tested for and found significant results that led to productive conversations
- Promoted diversity by encouraging students from different majors to learn how to perform statistical analysis

American Statistical Association - Datafest, Chapman University & UCLA   **April 2018, 2019, 2021**
- Participated in a data-hackathon for 48 hours to analyze a large and rich dataset and present findings to a panel of judges and a room of a hundred competitors in a visually appealing way
- Chapman (2018) — data donor: Indeed
  - Investigated *Indeed's* construction employment postings and found a spike in interest after a natural disaster; suggested that marketing efforts should be allocated based on forecasted start dates of incidents
- UCLA (2019) — data donor: Canadian Women's Rugby Team
  - Analyzed womens' survey answers regarding health measures and confirmed the hypothesis that the total duration of workouts before a tournament resulted to more games won on average, despite increase in fatigue levels; suggested to not decrease total duration based off fatigue, but not complete high intensity workouts at the start of the season to reduce burnout
- UCLA (2021) — data donor: Rocky Mountain Poison and Drug Safety Center
  - Explored how misuse of drugs is related to one's external surroundings, namely the political culture of where they reside; observed a noticeable trend between Democrats and Republicans and suggested that the organization include a survey question regarding political affiliation

LEADERSHIP EXPERIENCE
Women in Data Science (WiDS) Ambassador, Stanford University   **January 2020 - present**
- Established the first Riverside WiDS Regional event that had 60 people in attendance
- Contacted guests (Professor and Graduate student) to participate in event
- Hosted the Welcoming, Data Scientist Panel, and R Workshop sessions
- Collaborated with Professors Analisa Flores and Mariam Salloum

President, Highlander Statistics Society, UCR   **June 2019 - June 2021**
- Integrated, organized, and led coding workshops for students to learn R at club meetings
- Produced a presentation regarding undergraduate research to help other students find opportunities
- Partnered with faculty members to organize club field trips to companies such as Google and Uber
- Collaborated with UCR alumni to speak to the club about career topics and academia
- Coordinated street-clean up events to fundraise for annual Datafest competition
- Re-elected to serve as President for another year

Representative, Diversity, Equity, Inclusion Committee (DEI), UCR   **April 2021- June 2021**
- Brainstormed ideas and initiatives to build DEI efforts within the community
- Compiled a list of organized campus research programs for students in the Statistics Department
- Organized a Department "coffee hour" to bridge the gap between students (undergrad/grad) and faculty
- Proposed to officialize mission statement and action plans for the year to demonstrate commitment

VOLUNTEER WORK
Volunteer Statistics Tutor, STAT100A & STAT048, UCR   **September 2019 - November 2019**
- Recommended by a Professor to tutor a student in their class
- Guided student through homework, lectures, and practice tests in Introduction to Statistics courses
- Succeeded in helping a student elevate their exam score by 2 letter grades
- Reserved libraries rooms 4x a week to hold study areas for more students to learn

HONORS & ASSOCIATIONS

Honors Excellence In Research Scholarship	**January 2021**
University Honors	**August 2018 - present**
Stanford University Women in Data Science	**January 2020 - present**
American Statistical Association, ASA OCLB Chapter	**January 2018 - January 2019**