

# Hubert Luo

[hluo27.github.io](https://github.com/hluo27) | [linkedin.com/in/hubertluo](https://www.linkedin.com/in/hubertluo)

## EDUCATION

University of California, Berkeley

May 2020

B.A. Statistics, Mathematics

GPA: 3.96, Dean's Honours List

Coursework: Linear Modelling, AI, Data Science, Stochastic Processes, Linear/Abstract Algebra, Numerical/Real Analysis, Computing

## TECHNICAL SKILLS

- Programming Languages: R, Python, SQL, MATLAB, SAS, Bash, LaTeX
- Data Analytics Tools: Tableau, Jupyter Notebook, Excel, Markdown, Qualtrics

## PROFESSIONAL EXPERIENCE

WellDone International (NGO)

June 2018 – Present

Data Science Intern

San Francisco, CA

- Train, apply, and evaluate machine learning models to predict hand pump failures for governments and aid organizations
- Research, quantify, and summarize the impact and results of existing data projects in the water, sanitation, and hygiene sector

UC Berkeley Family and Culture Lab

January 2017 – May 2018

Undergraduate Researcher, Kids and Family Project

Berkeley, CA

- Design database and analyze longitudinal study data on risk and protective factors that impact childhood development
- Distribute, process, and evaluate 258 surveys using Qualtrics and Excel; lead Qualtrics team in online survey distribution

Berkeley Statistics Students Association

September 2017 – December 2017

Data Consultant, Alameda County Food Bank Project

Berkeley, CA

- Analyzed social, economic, and demographic datasets to conduct exploratory data analysis and identify areas in need of hunger alleviation services; created multivariable predictive model to predict pounds unmet by census tract using Python and R
- Created data visualizations, wrote report, and created slides to communicate findings and develop distribution strategies

Ivy Global (Educational Consulting)

June 2016 – August 2016

Math Content Development Intern

Toronto, ON

- Created 120 math practice test questions and answer explanations and uploaded 200 answer explanations online using LaTeX
- Developed company-wide LaTeX guide to boost consistency in coding style, save time when debugging, and streamline training

## PROJECTS

Pacman Agent

June/July 2018

- Created collaborative agent that implemented A\* search, minimax game trees, and reinforcement learning to play Pacman

Classifying Legendary Pokémon

May 2018

- Developed classifier to predict whether a Pokémon is legendary or not with 98.8% accuracy using k-means clustering

Location of Palindromes in DNA Sequence of Human Cytomegalovirus

March 2018

- Tested goodness-of-fit of palindrome locations with model; wrote report with visualizations and tables to discuss results

2016-17 NBA Statistics

February 2018

- Applied bootstrap/jackknife resampling; calculated sample statistics, standard errors, correlations, and confidence intervals

Research Talk on the Face Lattice of a Convex Polytope

December 2017

- Discussed the face lattice of convex polytopes and how to completely characterize the combinatorial structure of a hypercube

## LEADERSHIP & TEACHING EXPERIENCE

Berkeley Model United Nations

September 2016 – Present

Director of Organizational Partnerships and Co-Chair of UN Economic and Financial Committee

Berkeley, CA

- Negotiate deals with airlines, hotels, restaurants, and organizations in 5 countries to provide discounts totalling \$5,000
- Moderate debate between 400 delegates, write case studies, and grade research papers to boost understanding of world issues

UC Berkeley – Data Science Department

January 2017 – Present

Group Tutor, Data 8: Foundations of Data Science

Berkeley, CA

- Lead review sessions, grade homework assignments, create tutoring worksheets, and hold office hours to reinforce key concepts

Associated Students of the University of California (Student Government)

August 2016 – May 2017

International Affairs Coordinator

Berkeley, CA

- Spearheaded organization and implementation of Visa and Career Planning Workshop for 100 international students
- Researched and planned cultural exchange events with 300 attendees to facilitate inter-cultural awareness and understanding

Interests: Karate (2<sup>nd</sup> Degree Black Belt), hockey, swimming, 20<sup>th</sup> century history, international affairs, piano (Associate of the Royal Conservatory of Music)