

Hubert Luo

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EDUCATION

University of California, Berkeley

May 2020

B.A. Pure Mathematics, Statistics

GPA: 3.95, Dean's Honours List

Coursework: Data Science, Computing with Data, Linear Algebra, Sampling, Estimation, Testing, Probability, Analysis, Calculus

PROFESSIONAL EXPERIENCE

UC Berkeley Family and Culture Lab, Undergraduate Researcher, Zhou Group: Kids and Family Project

January 2017 – Present

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

University of California, Berkeley, Group Tutor, Statistics 134: Concepts of Probability

January 2017 – Present

- Lead review sessions of course concepts/assignments; grade homework assignments; create worksheets to reinforce key ideas

Student Learning Centre Tutor, Math 54: Linear Algebra | Math 55: Discrete Mathematics

August 2017 – December 2017

- Held office hours for 3 hours per week to answer questions and provide feedback about homework, quizzes, and exams

Academic Intern, Computer Science 61A: Structure and Interpretation of Computer Programs

January 2017 – May 2017

- Assisted students with Python/SQL labs and answered questions regarding homework and projects to reinforce concepts

Berkeley Statistics Students Association, Data Consultant, Alameda County Food Bank Project

September 2017 – December 2017

- 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 variety of data visualizations, i.e., choropleth maps, to present findings and investigate model accuracy using Tableau
- Conducted literature review, cleaned census data, and wrote final report and slides to develop distribution and service strategies

Ivy Global (Educational Consulting), Math Content Development Intern

June 2016 – August 2016

- 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

LEADERSHIP EXPERIENCE

Berkeley Model United Nations, Director of Organizational Partnerships

September 2016 – Present

- Research, evaluate, and supervise partnerships with businesses across 5 continents to provide resources, information, and discounts to 2,000+ delegates at oldest and largest Model UN conference on the west coast of the United States
- Initiate and secure deals with airlines, hotels, transportation companies, and educational firms to provide discounted rates

Co-Chair of UN Economic and Financial Committee

- Moderate debate between 400 delegates to boost student knowledge and understanding of contemporary world issues
- Discuss student progress with advisors, write case studies, grade research papers, and return delegate feedback after conference

Associated Students of the Univ. of California (Student Government), International Affairs Coordinator

August 2016 – May 2017

- 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

Northern Karate Schools, Karate Instructor

March 2013 – June 2016

- Directed karate lessons of up to 30 students; evaluated students' competency of karate kata, self-defense, weapons, and sparring

PROJECTS

Analysis of the Location of Palindromes in DNA Sequence of Human Cytomegalovirus (R)

March 2018

- Used chi-square goodness-of-fit test to see if palindrome locations followed Poisson distribution; wrote report with findings

2016-17 NBA Statistics (R)

February 2018

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

National Pokédex Data Analysis (Python/Jupyter Notebook)

January 2018

- Simulated random sampling, cleaned datasets, and conducted exploratory data analysis, i.e., cross tabulations and grouping

Face Lattice of a Convex Polytope (Research Talk)

December 2017

- Gave a talk on face lattice of convex polytopes and how to completely characterize the combinatorial structure of a hypercube
- Participated in an independent reading project on convex polytopes, a field that combines combinatorics and graph theory

SKILLS & INTERESTS

- Technical Skills: R, Python, Tableau, SAS, SQL, Jupyter Notebook, Excel, Qualtrics, SPSS, LaTeX, Markdown, Bash
- Language Skills: English (native), Mandarin (fluent) | Interests: Ice hockey, swimming, international relations