

Hubert Luo

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EDUCATION

University of California, Berkeley
B.A. Statistics, Pure Mathematics

May 2020

GPA: 3.96, Dean's Honours List

Coursework: Data Science, Artificial Intelligence, Computing, Linear/Abstract Algebra, Statistical/Probability Theory, Real Analysis

TECHNICAL SKILLS

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

PROFESSIONAL EXPERIENCE

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 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)

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

Classifying Legendary Pokémon (R)

May 2018

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

Predicting Child Heights from Parent Heights (Python/Jupyter Notebook)

April 2018

- Fitted data using linear regression, applied method of least squares, calculated correlation, residuals and standardized data units

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

- 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, and restaurants from around the world to provide discounts totalling \$5,000
- Supervise partnerships with businesses in 5 countries to provide resources, information, and discounts to 2,000+ delegates
- Moderate debate between 400 delegates, write case studies, and grade research papers to boost understanding of world issues

UC Berkeley – Math/Statistics Departments

January 2017 – Present

Reader, Math 55: Discrete Mathematics | Group Tutor, Stat 134: Concepts of Statistics

Berkeley, CA

- Lead review sessions of course concepts/assignments; grade homework assignments; create worksheets to reinforce key ideas
- Classes tutored: Probability Theory, Linear Algebra, Discrete Mathematics, Structure and Interpretation of Computer Programs

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