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

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 – Present**
Undergraduate Researcher, Zhou Group: 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

Analysis of the Location of Palindromes in DNA Sequence of Human Cytomegalovirus (R) — **March 2018**
- Used hypothesis tests such as chi-square goodness-of-fit test to see if palindrome locations followed Poisson distribution
- Wrote extensive report with findings, tables, and visualizations for supporting evidence; discussed limitations and applicability

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

LEADERSHIP AND TEACHING EXPERIENCE

Berkeley Model United Nations — **September 2016 – Present**
Director of Organizational Partnerships and Co-Chair of UN Economic and Financial Committee — Berkeley, CA
- 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
- 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

UC Berkeley – Statistics Department — **January 2017 – Present**
Group Tutor, Statistics 134: Concepts of Probability — 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