

Hubert Luo

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EDUCATION

University of California, Berkeley

May 2020

B.A. Statistics, Applied Mathematics (Specialization: Data Science)

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, MATLAB, Bash, LaTeX
- Data Analytics Tools: Tableau, Jupyter Notebook, Git, 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 improve well failure prediction accuracy by using alternative data sources
- Created extensive 30-page report that summarized methodology and findings for governments and aid organizations

Stark Research Group

September 2018 – Present

Undergraduate Researcher, Look Who's Talking Project

Berkeley, CA

- Review video-recorded faculty job talks to transcribe the number, nature, and duration of interruptions and questions
- Perform statistical analysis to quantify interruptions and test whether race and gender matter; help draft paper for publication

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 datasets to identify areas in need of hunger alleviation services; created model to predict pounds unmet by census tract
- 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

Neural Networks (Python)

August 2018

- Built neural networks from scratch to implement handwritten digit classification, language classification, and regression models
- Tuned hyperparameters to achieve 97.5% accuracy on digit classification and loss of 0.0077 on sine curve regression

Pacman Agent (Python)

June/July 2018

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

Classifying Legendary Pokémon (R)

May 2018

- Developed classifier to predict whether a Pokémon is legendary with 98.8% accuracy using k-nearest neighbours algorithm

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

March 2018

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

LEADERSHIP & TEACHING EXPERIENCE

Berkeley Model United Nations

September 2016 – Present

Director of Organizational Partnerships

Berkeley, CA

- Negotiate deals to provide \$5,000 discounts; moderate debate between 400 delegates 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

- Coordinated Visa and Career Planning Workshop for 100 students and cultural exchange events with 300 attendees

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