

## Kenneth Lee

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CONTACT INFORMATION	3800 Solano Park Circle, Apt 3612, Davis, CA 95616	honlee@ucdavis.edu  <a href="https://kenneth-lee-ch.github.io">https://kenneth-lee-ch.github.io</a> <a href="https://www.linkedin.com/in/chinhongkennethlee">www.linkedin.com/in/chinhongkennethlee</a>
RESEARCH INTERESTS	Casual inference, reinforcement learning, optimal control, graphical models, robotics, artificial intelligence.	
EDUCATION	<b>University of California, Davis</b> M.S. in Statistics 2019 - 2021  <b>Brigham Young University—Hawaii</b> B.S. in Mathematics, Computer Science 2014 - 2018 <ul style="list-style-type: none"><li>• Minors: Information Systems, Information Technology</li><li>• Honors Thesis: <i>An Evaluation of Blind Reconstruction Methods of the Dynamical Structure Functions</i></li><li>• Advisor: Vasu Chetty</li><li>• CGPA: 4.0/4.0</li></ul>	
RESEARCH EXPERIENCE	<b>University of California, Davis</b> Researcher Oct 2020 - Present <ul style="list-style-type: none"><li>• <i>Machine Learning</i>: Researching on an alternative to a probability calibration method named Platt scaling [<b>Project Link</b>].</li><li>• <i>Data Science</i>: Researching on an alternative to resampling techniques in dealing with unbalanced class data.</li><li>• Supervisor: Norm Matloff</li></ul> <b>Carnegie Mellon University Delphi Epi-Forecasting Group</b> Researcher Sep 2020 - Present <ul style="list-style-type: none"><li>• <i>Data Analysis</i>: Studied the association among government intervention, mobility, and other potential confounders in US with Delphi EpiData API. [<b>Project Link</b>].</li><li>• Status: Part-Time</li><li>• Working hours: 20 hours per week</li><li>• Supervisor: James Sharpnack</li></ul> <b>Brigham Young University—Hawaii Institutional Research</b> Research Analyst Intern Aug 2018 - Jun 2019 <ul style="list-style-type: none"><li>• <i>Consulting</i>: Leveraged 11-year data from enrollment, degree completion, freshman cohort, and curriculum to conduct retention study for BYU—Hawaii President's council.</li><li>• <i>Data Visualization</i>: Built pipelines to update Tableau Server workbooks automatically from Quartics surveys.</li><li>• <i>Database Management</i>: Coordinated with the Enterprise Information System department at BYUH to establish a data warehouse to facilitate institutional research.</li><li>• <i>Data Cleaning</i>: Trained and supervised students workers on the data cleaning and visualization with R and Tableau.</li><li>• Status: Part-Time</li></ul>	

- Working hours: 27 hours per week
- Supervisor: Kathy Pulotu

#### Research Assistant Supervisor

Sept 2017 - Jun 2018

- *Literature reviews:* Conducted literature reviews for designing new graduating student survey.
- *Data Visualization:* Built a data dashboard from cleaning course evaluation survey data of the past 5 years in R to visualizing the data via Tableau for the school administration and faculty.
- *Statistical Analysis:* Evaluated the redundancy of the graduating student survey questions by using factor analysis.
- *Survey Design:* Led a poster publication titled “*How Meaningful Is Our Graduating Student Survey*” to showcase how to better evaluate survey design.
- Status: Part-Time
- Working hours: 19 hours per week
- Supervisor: Kathy Pulotu

#### Brigham Young University IDeA Labs

##### Researcher Intern

Jun 2017 - Aug 2017

- *Systems Theory:* Research in Systems and Control Theory with applications in a variety of areas including social networks, natural language processing, and biological systems.
- *Software Engineering:* Tasks involve developing code, modeling networks, analyzing simulations, developing theoretical results and writing research papers.
- Advisor: Sean Warnick
- Status: Full-Time
- Working hours: 40 hours per week

#### PROFESSIONAL EXPERIENCE

#### Newday Impact Investing

##### Investment Analyst

Sep 2020 - Present

- *Deep Learning:* Leveraged partner company’s sustainable portfolio data by transfer learning to increase F1-score from 0.5 to 0.75 on classifying 1:16 imbalanced sustainable companies based on metrics developed by Newday.
- Status: Part-Time
- Working hours: 20 hours per week

##### Data Analytics Intern

Jun 2020 - Sep 2020

- *Machine Learning:* Selected companies from S&P 500 that account for the variance of stock price based on principal component analysis to aid decisions making on portfolio construction with back-testing.
- Status: Full-Time
- Working hours: 40 hours per week

#### Dell EMC

##### Associate Consultant Intern

Jun 2019 - Sep 2019

- *System Testing:* Designed and implemented test cases using MS SQL Server for the human resources manpower information system of Hong Kong Vocational Training Council.
- Status: Full-Time
- Working hours: 40 hours per week

TEACHING  
EXPERIENCE

**University of California—Davis**

Teaching Assistant

2019 - Present

- Graduate Level
  - BAX 453 Application Domains (Spring 2021)
  - BAX 452 Machine Learning (Winter 2021)
  - BAX 411 Intermediate Statistics (Fall 2020)
  - BAX 400 Foundation of Business Analytics (Summer 2020)
  - BAX 463 Practicum Analysis & Implementation (Spring 2020)
- Undergraduate Level
  - Statistics Bootcamp on R (Summer 2020)
  - 12Y Data Visualization for Social Sciences (Fall 2019, Winter 2020)

**Brigham Young University—Hawaii**

Computer Science Substitute Instructor

2017

- CS301: Algorithms and Complexity.

Math Lab Tutor (Calculus)

2015 - 2016

PROJECTS

**Predict Patient Inflow at Pali Momi Hospital's Emergency Room**

- *Machine Learning*: Applied quantile regression model to predict patient inflow at Pali Momi Hospital's Emergency Room (ER).
- *Consulting*: Provided recommendations for how to optimize scheduling for their ER's doctors and mid-level providers.
- Duration: Apr-Jun 2018
- Number of hours per week of effort: 2
- Advisor: Cody Baldwin

**Understanding the resting behaviors of Trirectangular Tetrahedral and Triangular Prism Dice Rolls**

- *Computer Vision*: Applied Faster Regional-Convolutional Neural Networks (RCNN) in Python to count dice rolls more efficiently by object detection.
- *Robotics*: Configured a dice rolling machine from scratch to automate the process of dice rolling and reduce bias that may come from rolling dice by hand.
- *Software Engineering*: Rewrote codes from MATLAB image processing toolbox to Python using OpenCV, scikit-image and dlib libraries.
- Duration: 2017- 2019
- Number of hours per week of effort: 3
- Advisor: Paul Hurst

## PUBLICATIONS

**Conference Proceedings**

V. Chetty, N. Woodbury, J. Brewer, **K. Lee** and S. Warnick, *Applying a Passive Network Reconstruction Technique to Twitter Data in Order to Identify Trend Setters*, IEEE Conference on Control Technology and Applications, Kohala Coast, HI, 2017.

**Posters**

**K. Lee**, S. Fuluva, *Meet Don, the Autonomous Dice Rolling Machine*, Brigham Young University-Hawaii Undergraduate Research Conference, 2018.

**K. Lee**, K. Pulotu, *Graduating Student Survey Revision: A student effort*, California Association for Institutional Research, Garden Grove, CA, 2018.

K. Pulotu, **K. Lee**, T. Vallabh, Hong Ni M. and R. Ram, *How Meaningful is our Graduating Student Survey?*, Academic Resource Conference, Burlingame, CA, 2018.

SELECTED  
HONORS**Brigham Young University—Hawaii**

Computer and Information Science Overall Outstanding Graduate 2018

**(Top 1 of the graduating class)**

Undergraduate Research Best Oral Presentation Award **(1 out of 30 peer research teams)** 2018

Computer Science Alumni Scholarship **(Nominated by faculty)** 2017 - 2018

Mathematics Departmental Scholarship **(Nominated by faculty)** 2014 - 2018

Academic Merit Scholarship **(Top 5% of the school)** 2014 - 2018

University Dean's List **(Top 5% of the school)** 2014 - 2018

Hong Kong Student Association Leadership Certificate 2015 - 2016

BYUH Student Leadership Award 2015

**Association for Computing Machinery**

ACM/UPE Scholarship Award **(4 out of all the ACM student members)** 2017

**The National Society of Leadership and Success**

Academic Excellence Scholarship **(12 out of all the NSLS inducted members)** 2017

**The Honor Society of Phi Kappa Phi**

Love of Learning Award 2019

VOLUNTARY  
EXPERIENCE**Brigham Young University—Hawaii**

Hong Kong Student Association President 2015 - 2016

- Increased membership from 50+ to 100+ in one year.
- Led my association to perform on a stage in front of 3000+ audience at an annual event called *Culture Night* at BYUH.
- Organized 30+ small and large events such as *speed dating*, *food festival*, career, and networking workshop for members.
- Status: Part-Time
- Working hours: 10 hours per week

Hong Kong Student Association Vice President 2014 - 2015

- Created a menu to earn a profit of \$1000+ from annual *food festival* event for the association in one night.
- Status: Part-Time
- Working hours: 10 hours per week

### The Church Of Jesus Christ of Latter-Day Saints

Missionary

2012 - 2014

- Appointed to lead and provide training to groups of up to 30 other missionaries.
- Gained experience in interpersonal skills by sharing the message of Jesus Christ via means of cold calls, street contacts, and visiting people in their homes.
- Status: Full-Time
- Working hours: 112 hours per week

### PROFESSIONAL AFFILIATIONS

The National Society of Leadership and Success, Member  
Phi Kappa Phi, Member  
Association of Computing Machinery, Member  
Upsilon Pi Epsilon, Member

2017 - Present  
2016 - Present  
2016 - Present  
2016 - Present

### CERTIFICATIONS

Deep Learning Specialization, deeplearning.ai  
Machine Learning by Stanford University, Coursera  
Tableau Desktop Specialist, Tableau Software

Jun 2019  
Mar 2019  
Feb 2019

### SKILLS

*Language:* English (Fluent), Cantonese (Native), Mandarin (Fluent)  
*Programming Language:* Python, R, MATLAB, SQL, C#, C, C++, PHP, Ruby, Java  
*Framework:* , Pytorch, Keras, OpenCV, Scikit-learn, TensorFlow, Dlib  
*Other:* Tableau, AWS EC2, AWS Dynamodb, AWS S3

### REFERENCES

- Academia:
  - **Dr. Norm Matloff**, Professor, UC Davis
    - \* Field of study: Probability, Functional Analysis and Statistics
    - \* Relationship: Project advisor
    - \* Phone: 530-752-1953, Email: [matloff@cs.ucdavis.edu](mailto:matloff@cs.ucdavis.edu)
  - **Dr. James Sharpnack**, Assistant Professor, UC Davis
    - \* Field of study: Statistics, Machine Learning
    - \* Relationship: Project advisor, a teacher in multiple classes
    - \* Phone: 530-341-3981, Email: [jsharpna@ucdavis.edu](mailto:jsharpna@ucdavis.edu)
  - **Dr. Vasu Chetty**, Principal Data Scientist, Lucid Software Inc.,
    - \* Field of study: Computer Science
    - \* Relationship: Thesis advisor, a teacher in multiple classes
    - \* Phone: 808-589-9586, Email: [vasuc@lucidchart.com](mailto:vasuc@lucidchart.com)
  - **Dr. Sean Warnick**, Professor, Brigham Young University,
    - \* Field of study: Network Systems and Control
    - \* Relationship: Summer research internship supervisor
    - \* Phone: 801-422-6463, Email: [sean@cs.byu.edu](mailto:sean@cs.byu.edu)
  - **Dr. Paul Hurst**, Associate Professor, Brigham Young University—Hawaii,
    - \* Field of study: Mathematics
    - \* Relationship: Research advisor, a teacher in multiple classes
    - \* Phone: 808-675-3802, Email: [hurstp@byuh.edu](mailto:hurstp@byuh.edu)

- **Dr. Joel Helms**, Professor, Brigham Young University—Hawaii,
  - \* Field of study: Mathematics
  - \* Relationship: A teacher in multiple classes
  - \* Phone: 808-675-4704, Email: [joel.helms@byuh.edu](mailto:joel.helms@byuh.edu)
- Employment:
  - **Ms. Kathy Pulotu**, Institutional Research and Assessment Manager, Brigham Young University—Hawaii,
    - \* Relationship: Direct supervisor
    - \* Email: [kathy.pulotu@byuh.edu](mailto:kathy.pulotu@byuh.edu)
  - **Dr. Rose Ram**, Associate Academic Vice President Curriculum and Assessment, Brigham Young University—Hawaii,
    - \* Relationship: Indirect supervisor
    - \* Email: [rose.ram@byuh.edu](mailto:rose.ram@byuh.edu)