

## Kenneth Lee

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| CONTACT<br>INFORMATION | 3800 Solano Park Circle, Apt 3612, Davis, CA 95616   | honlee@ucdavis.edu<br><br><a href="https://kenneth-lee-ch.github.io">https://kenneth-lee-ch.github.io</a><br><a href="https://www.linkedin.com/in/chinhongkennethlee">www.linkedin.com/in/chinhongkennethlee</a> |
| RESEARCH<br>INTERESTS  | Casual inference, reinforcement learning, graphical models, robotics, artificial intelligence.   |  |
| EDUCATION              | <b>University of California, Davis</b><br>M.S. in Statistics 2019 - 2021<br><br><b>Brigham Young University—Hawaii</b><br>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>• GPA: 4.0/4.0</li></ul>   |  |
| RESEARCH<br>EXPERIENCE | <b>Carnegie Mellon University Delphi Epi-Forecasting Group</b><br>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.</li><li>• Status: Part-Time</li><li>• Working hours: 20 hours per week</li><li>• Supervisor: James Sharpnack</li></ul><br><b>Brigham Young University—Hawaii Institutional Research</b><br>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><li>• Working hours: 27 hours per week</li><li>• Supervisor: Kathy Pulotu</li></ul><br>Research Assistant Supervisor Sept 2017 - Jun 2018 <ul style="list-style-type: none"><li>• <i>Literature reviews:</i> Conducted literature reviews for designing new graduating student survey.</li></ul> |  |

- *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

#### **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 (R-CNN) 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. Fuluvaka, *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

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| PROFESSIONAL AFFILIATIONS | The National Society of Leadership and Success, Member<br>Phi Kappa Phi, Member<br>Association of Computing Machinery, Member<br>Upsilon Pi Epsilon, Member   | 2017 - Present<br>2016 - Present<br>2016 - Present<br>2016 - Present |
| CERTIFICATIONS            | Deep Learning Specialization, deeplearning.ai<br>Machine Learning by Stanford University, Coursera<br>Tableau Desktop Specialist, Tableau Software  | Jun 2019<br>Mar 2019<br>Feb 2019                                     |
| SKILLS                    | <i>Language:</i> English (Fluent), Cantonese (Native), Mandarin (Fluent)<br><i>Programming Language:</i> Python, R, MATLAB, SQL, C#, C, C++, PHP, Ruby, Java<br><i>Framework:</i> , Pytorch, Keras, OpenCV, Scikit-learn, TensorFlow, Dlib<br><i>Other:</i> Tableau, AWS EC2, AWS Dynamodb, AWS S3  |  |
| REFERENCES                | <ul style="list-style-type: none"> <li>• Academia:           <ul style="list-style-type: none"> <li>– <b>Dr. James Sharpnack</b>, Assistant Professor, UC Davis               <ul style="list-style-type: none"> <li>* Field of study: Statistics, Machine Learning</li> <li>* Relationship: Project advisor, a teacher in multiple classes</li> <li>* Phone: 530-341-3981, Email: <a href="mailto:jsharpna@ucdavis.edu">jsharpna@ucdavis.edu</a></li> </ul> </li> <li>– <b>Dr. Vasu Chetty</b>, Principal Data Scientist, Lucid Software Inc.,               <ul style="list-style-type: none"> <li>* Field of study: Computer Science</li> <li>* Relationship: Thesis advisor, a teacher in multiple classes</li> <li>* Phone: 808-589-9586, Email: <a href="mailto:vasuc@lucidchart.com">vasuc@lucidchart.com</a></li> </ul> </li> <li>– <b>Dr. Sean Warnick</b>, Professor, Brigham Young University,               <ul style="list-style-type: none"> <li>* Field of study: Network Systems and Control</li> <li>* Relationship: Summer research internship supervisor</li> <li>* Phone: 801-422-6463, Email: <a href="mailto:sean@cs.byu.edu">sean@cs.byu.edu</a></li> </ul> </li> <li>– <b>Dr. Paul Hurst</b>, Associate Professor, Brigham Young University—Hawaii,               <ul style="list-style-type: none"> <li>* Field of study: Mathematics</li> <li>* Relationship: Research advisor, a teacher in multiple classes</li> <li>* Phone: 808-675-3802, Email: <a href="mailto:hurstp@byuh.edu">hurstp@byuh.edu</a></li> </ul> </li> <li>– <b>Dr. Joel Helms</b>, Professor, Brigham Young University—Hawaii,               <ul style="list-style-type: none"> <li>* Field of study: Mathematics</li> <li>* Relationship: A teacher in multiple classes</li> <li>* Phone: 808-675-4704, Email: <a href="mailto:joel.helms@byuh.edu">joel.helms@byuh.edu</a></li> </ul> </li> </ul> </li> <li>• Employment:           <ul style="list-style-type: none"> <li>– <b>Ms. Kathy Pulotu</b>, Institutional Research and Assessment Manager, Brigham Young University—Hawaii,               <ul style="list-style-type: none"> <li>* Relationship: Direct supervisor</li> <li>* Email: <a href="mailto:kathy.pulotu@byuh.edu">kathy.pulotu@byuh.edu</a></li> </ul> </li> <li>– <b>Dr. Rose Ram</b>, Associate Academic Vice President Curriculum and Assessment, Brigham Young University—Hawaii,               <ul style="list-style-type: none"> <li>* Relationship: Indirect supervisor</li> <li>* Email: <a href="mailto:rose.ram@byuh.edu">rose.ram@byuh.edu</a></li> </ul> </li> </ul> </li> </ul> |  |