

## Kenneth Lee

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| CONTACT INFORMATION | TVA#6117, 55-550 Naniloa Loop<br>Laie, HI 96762  | honlee@ucdavis.edu<br><a href="https://kenneth-lee-ch.github.io">https://kenneth-lee-ch.github.io</a><br><a href="http://www.linkedin.com/in/chinhongkennethlee">www.linkedin.com/in/chinhongkennethlee</a> |
| RESEARCH INTERESTS  | Machine learning, high-dimensional statistics, casual inference, data mining, optimization.  |   |
| 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 EXPERIENCE | <b>Brigham Young University—Hawaii Institutional Research</b><br>Research Analyst Intern Aug 2018 - Present <ul style="list-style-type: none"><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>• <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>• 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>Data Visualization</i>: 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.</li><li>• <i>Statistical Analysis</i>: Evaluated the redundancy of the graduating student survey questions by using factor analysis.</li><li>• <i>Survey Design</i>: Led a poster publication titled “<i>How Meaningful Is Our Graduating Student Survey</i>” to showcase how to better evaluate survey design.</li><li>• Status: Part-Time</li><li>• Working hours: 19 hours per week</li><li>• Supervisor: Kathy Pulotu</li></ul><br><b>Brigham Young University IDEA Lab</b><br>Researcher Intern Jun - 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

## 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-Recurrent 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- Present
- 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**, 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.

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| PRESENTATIONS        | <p><b>K. Lee</b>, S. Fuluva, <i>Meet Don, the Autonomous Dice Rolling Machine</i>, Brigham Young University-Hawaii Undergraduate Research Conference, 2018.</p> <p><b>K. Lee</b>, <i>An Evaluation of Blind Reconstruction Methods of the Dynamical Structure Functions</i>, Senior Research Presentation, Department of Computer Science, Brigham Young University-Hawaii, 2018.</p>   |  |
| SELECTED HONORS      | <p><b>Brigham Young University—Hawaii</b></p> <p>Computer and Information Science Overall Outstanding Graduate 2018<br/>(<b>Top 1 of the graduating class</b>)</p> <p>Undergraduate Research Best Oral Presentation Award (<b>1 out of 30 peer research teams</b>) 2018</p> <p>Computer Science Alumni Scholarship (<b>Nominated by faculty</b>) 2017 - 2018</p> <p>Mathematics Departmental Scholarship (<b>Nominated by faculty</b>) 2014 - 2018</p> <p>Academic Merit Scholarship (<b>Top 5% of the school</b>) 2014 - 2018</p> <p>University Dean's List (<b>Top 5% of the school</b>) 2014 - 2018</p> <p>Hong Kong Student Association Leadership Certificate 2015 - 2016</p> <p>BYUH Student Leadership Award 2015</p> <p><b>Association for Computing Machinery</b></p> <p>ACM/UPE Scholarship Award (<b>4 out of all the ACM student members</b>) 2017</p> <p><b>The National Society of Leadership and Success</b></p> <p>Academic Excellence Scholarship (<b>12 out of all the NSLS inducted members</b>) 2017</p>  |  |
| VOLUNTARY EXPERIENCE | <p><b>Brigham Young University—Hawaii</b></p> <p>Hong Kong Student Association President 2015 - 2016</p> <ul style="list-style-type: none"> <li>• Increased membership from 50+ to 100+ in one year.</li> <li>• Led my association to perform on a stage in front of 3000+ audience at an annual event called <i>Culture Night</i> at BYUH.</li> <li>• Organized 30+ small and large events such as <i>speed dating</i>, <i>food festival</i>, career, and networking workshop for members.</li> <li>• Status: Part-Time</li> <li>• Working hours: 10 hours per week</li> </ul> <p>Hong Kong Student Association Vice President 2014 - 2015</p> <ul style="list-style-type: none"> <li>• Created a menu to earn a profit of \$1000+ from annual <i>food festival</i> event for the association in one night.</li> <li>• Status: Part-Time</li> <li>• Working hours: 10 hours per week</li> </ul> <p><b>The Church Of Jesus Christ of Latter-Day Saints</b></p> <p>Missionary 2012 - 2014</p> <ul style="list-style-type: none"> <li>• Appointed to lead and provide training to groups of up to 30 other missionaries.</li> <li>• 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.</li> <li>• Status: Full-Time</li> <li>• Working hours: 112 hours per week</li> </ul> |  |

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| TEACHING<br>EXPERIENCE       | <b>Brigham Young University—Hawaii</b>  |                |
|                              | Computer Science Substitute Instructor  | 2017           |
|                              | <ul style="list-style-type: none"> <li>• Taught my 30+ peers two lectures about difference equations.</li> </ul>  |                |
|                              | Math Lab Tutor  | 2015 - 2016    |
|                              | <ul style="list-style-type: none"> <li>• Provided tutoring services to classes of Calculus I, Calculus II, Multivariate calculus.</li> </ul>  |                |
| PROFESSIONAL<br>AFFILIATIONS | The National Society of Leadership and Success, Member  | 2017 - Present |
|                              | Phi Kappa Phi, Member   | 2016 - Present |
|                              | Association of Computing Machinery, Member  | 2016 - Present |
|                              | Upsilon Pi Epsilon, Member  | 2016 - Present |
| CERTIFICATIONS               | Machine Learning by Stanford University, Coursera   | Mar 2019       |
|                              | Tableau Desktop Specialist, Tableau Software  | Feb 2019       |
| SKILLS                       | <p><i>Language:</i> English (Fluent), Cantonese (Native), Mandarin (Fluent)</p> <p><i>Programming Language:</i> Python, R, MATLAB, SQL, C#, C, C++, PHP, Ruby, Java</p> <p><i>Framework:</i> OpenCV, Scikit-learn, TensorFlow, Dlib, Pytorch</p> <p><i>Other:</i> Tableau, AWS EC2, AWS Dynamodb, AWS S3</p>  |                |
| REFERENCES                   | <ul style="list-style-type: none"> <li>• Academia: <ul style="list-style-type: none"> <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>, Associate Professor, Brigham Young University, <ul style="list-style-type: none"> <li>* Field of study: Computer Science</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> <li>– <b>Mr. Cody Baldwin</b>, Assistant Professor, Brigham Young University—Hawaii, <ul style="list-style-type: none"> <li>* Field of study: Supply Chain and Operations</li> <li>* Relationship: A teacher in one class</li> <li>* Phone: 808-675-4827, Email: <a href="mailto:cody.baldwin@byuh.edu">cody.baldwin@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> </ul> </li> </ul> </li> </ul> |                |

- \* Email: `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`