Kenneth Lee

CONTACT Information

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RESEARCH INTERESTS EDUCATION Machine learning, recommender systems, optimization, data mining.

Brigham Young University-Hawaii, HI

B.S. Mathematics, Computer Science

2014 - 2018

- Served as a vice president, then a president of Hong Kong Student Association to plan and organize activities from 2014 to 2016.
- Taught my thirty peers two lectures about difference equations as a substitute instructor.
- Minors: Information Systems, Information Technology
- Honors Thesis: An Evaluation of Blind Reconstruction Methods of the Dynamical Structure Functions
- Advisor: Vasu Chetty
- GPA: 4.0/4.0, Dean's List from 2014 to 2018

RESEARCH EXPERIENCE

Brigham Young University-Hawaii Institutional Research Group

Research Analyst Intern

Aug 2018 - Present

- Built pipelines to update Tableau Server workbooks automatically from Quartics surveys.
- Coordinated with the Enterprise Information System department at BYUH to build databases that can connect to analytical tools used by the institutional research group for real-time data analytics.
- Trained and supervised students workers on the data cleaning and visualization with R and Tableau.
- Planned and conducted research to assist with accreditation, university assessment, and President's Council inquiries.

Research Assistant Supervisor

Sept 2017 - Aug 2018

- 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.
- Evaluated the redundancy of the graduating student survey questions by using factor analysis.
- Led a poster publication titled "How Meaningful Is Our Graduating Student Survey" to showcase how to better evaluate survey design.

Brigham Young University IDEA Lab

Researcher Intern

Jun - Aug 2017

- Research in Systems and Control Theory with applications in a variety of areas including social networks, natural language processing, and biological systems.
- Tasks involve developing code, modeling networks, analyzing simulations, developing theoretical results and writing research papers.
- Advisor: Sean Warnick

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

- Applied machine learning to predict patient inflow at Pali Momi Hospital's Emergency Room (ER).
- Provided recommendations for how to optimize scheduling for their ER's doctors and mid-level providers.

Duration: Apr-Jun 2018Advisor: Cody Baldwin

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

- Trained a histogram of oriented gradients feature descriptor in Python to count dice rolls more efficiently by object detection.
- Configured a dice rolling machine to automate the process of dice rolling and reduce bias that may come from rolling dice by hands.
- Rewrote codes from MATLAB image processing toolbox to Python using OpenCV, scikit-image and dlib libraries.

Duration: 2017- PresentAdvisor: 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. Pulutu, K. Lee, Graduating Student Survey Revision: A student effort, California Association for Institutional Research, Garden Grove, CA, 2018.

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

Presentations

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

K. Lee, An Evaluation of Blind Reconstruction Methods of the Dynamical Structure Functions, Senior Research Presentation, Department of Computer Science, Brigham Young University-Hawaii, 2018.

SELECTED HONORS

Brigham Young University-Hawaii

Computer and Information Science Overall Outstanding Graduate	2018
Undergraduate Research Best Oral Presentation Award	2018
Computer Science Alumni Scholarship	2017 - 2018
Mathematics Departmental Scholarship	2014 - 2018
Academic Merit Scholarship	2014 - 2018
Hong Kong Student Association Leadership Certificate	2015 - 2016

Association for Computing Machinery

ACM/UPE Scholarship Award 2017

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The National Society of Leadership and Success Academic Excellence Scholarship

	Academic Excellence Scholarship	2017
Professional Affiliations	Phi Kappa Phi, Member The National Society of Leadership and Success, Member Association of Computing Machinery, Member Upsilon Pi Epsilon, Member	2015 - Present 2015 - Present 2016 - Present 2016 - Present
Programming Languages	Proficient: Python, R, MATLAB, C# Familiar: C, C++, PHP, Ruby, Java	

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