Chun Yu Hong (Johnny)

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EDUCATION

Ph.D. student in Statistics August 2014 - Present
University of California, Berkeley *Expected May 2019*
Research interests: high-dimensional covariance matrix estimation; latent variable models
Advisors: Will Fithian (Department of Statistics), Perry de Valpine (Department of Environmental Science, Policy, and Management)

B.S. in Applied Mathematics (with Honors) September 2011 - June 2014
B.S. in Statistics (with Honors)
University of California, Davis

EXPERIENCE

Graduate Student Instructor September 2014 - Present
UC Berkeley Department of Statistics Berkeley, CA

- Grades exams, and occasionally suggests exam questions.
- Holds weekly lab sections and office hours, answering students' questions about the class materials.
- Courses: STAT 133 (Concepts in Computing with Data), STAT 134 (Concepts of Probability), STAT 135 (Concepts of Statistics), STAT 153 (Introduction to Time Series Analysis), STAT 154 (Modern Statistical Prediction and Machine Learning), STAT 210A (Theoretical Statistics) (Grader), STAT 222 (Statistics MA Capstone Project)

Data Science Intern Summer 2016, Summer 2017
Adobe Systems Incorporated San Jose, CA

- Developed models for customer churn forecasting using time series analysis and machine learning
- Wrote an R package for finding the optimal combination of multiple forecasts
- Created interactive visualization of model performance via R shinyApp
- Conducted performance evaluation of the existing marketing lead scoring system

Statistical Consultant January 2016 - May 2016
UC Berkeley Department of Statistics Berkeley, CA

- Provided statistical guidance for researchers (primarily for UC Berkeley students) in various disciplines, such as psychology, biology, and economics.
- Discussed statistical issues such as experimental design and hypothesis testing procedures.

Undergraduate Researcher August 2013 - September 2013
UC Davis Department of Mathematics Davis, CA

- Developed the first version of the program in Sage for computation and experimentation with the 1-row Gomory-Johnson infinite group problem
- Advisor: Matthias Köppe.

SELECTED WORKS

Relaxed Wasserstein with Applications to GANs, Xin Guo, Johnny Hong, Tianyi Lin, and Nan Yang, 2017. Preprint.
Sampling-Based Approaches to Maximum Likelihood Estimation for Latent Variable Models, Johnny Hong, Sara Stoudt, and Perry de Valpine, 2017. Under Revision.

PROJECTS

An introduction to the use of hidden Markov models for stock return analysis,
Johnny Hong and Yannik Pitcan, 2015.

- Final group project for the graduate-level course Statistical Learning Theory
- Project Role: Developed a hidden Markov model (HMM) for volatility analysis of stock returns

COMPUTER SKILLS

Proficient in R. Experience in Python, C, C++, and MATLAB (mainly from undergraduate coursework). Basic knowledge of SQL.

EXAMS

Actuarial Exam P (Probability): Pass (Grade: 10) — July 2013

HONORS AND AWARDS

Outstanding Graduate Student Instructor Award	UC Berkeley; 2016 - 2017
Dean's List	UC Davis; Fall 2011 - June 2014
Joseph Bonnheim Memorial Scholarship	UC Davis; Spring 2012, Spring 2013
Eric C. Ruliffson Scholarship in Mathematics	UC Davis; Spring 2012, Spring 2013
James and Leta Fulmor Scholarship	UC Davis; Spring 2012
Robert Lewis Wasser Memorial Scholarship	UC Davis; Spring 2012

VOLUNTARY EXPERIENCE

DataFest Helper — April 2017
University of California, Berkeley — Berkeley, CA

- Helped coordinate a data analysis competition for undergraduates
- Provided suggestions and feedback to participants

Math Circle Teaching Assistant — January 2013 - March 2013
University of California, Davis — Davis, CA

- Worked with a graduate student in teaching high school students elementary graph theory.
- Revised lesson plans and worksheets authored by the graduate student.
- Designed and taught independently one of the lessons.

SELECTED PRESENTATIONS

Berkeley Statistics Annual Research Symposium (BSTARS) — March 23, 2017
University of California, Berkeley — Berkeley, CA

- Poster presentation of **Sampling-Based Approaches to Maximum Likelihood Estimation for Latent Variable Models**, joint work with Sara Stoudt and Perry de Valpine.