

Chun Yu Hong (Johnny)

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EDUCATION

Ph.D. student in Statistics

University of California, Berkeley

Research interests: high-dimensional covariance matrix estimation; latent variable models

Advisors: William Fithian (Department of Statistics), Perry de Valpine (Department of Environmental Science, Policy, and Management)

August 2014 - Present

Expected May 2020

B.S. in Applied Mathematics (with Honors)

B.S. in Statistics (with Honors)

University of California, Davis

September 2011 - June 2014

EXPERIENCE

Data Science Analytics Intern

Facebook

- Worked closely with cross-functional partners on analyzing the performance of video ad with poll.
- Developed a novel framework for quantifying value of users to different types of advertising.
- Explored the value of brand advertising on Facebook and identified areas in which brand ads performed particularly well.

May 2019 - August 2019

Menlo Park, CA

Research Scientist

PRO Unlimited @ Facebook

- Evaluated the extent of treatment effect heterogeneity in Facebook experiments and raised awareness of the issue of multiple testing.

September 2018 - December 2018

Menlo Park, CA

Graduate Student Instructor

UC Berkeley Department of Statistics

- 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)

September 2014 - December 2018

Berkeley, CA

Data Scientist Intern

Quora Inc.

- Improved accuracy and precision in the A/B testing framework via advanced statistical methods.
- Conducted experiment analyses and metric investigations.
- Developed a data-driven approach for Quora digest email frequencies.

May 2018 - August 2018

Mountain View, CA

Data Science Intern

Adobe Systems Incorporated

- Developed models for customer churn forecasting using time series analysis and machine learning.
- Built 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.

June - August 2016; June - August 2017

San Jose, CA

Statistical Consultant

UC Berkeley Department of Statistics

January 2016 - May 2016

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

UC Davis Department of Mathematics

August 2013 - September 2013

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 (had used extensively at work before) in R, Python (including packages such as matplotlib, numpy, and pandas), SQL, Amazon Redshift, PySpark, Presto.

Experience (mainly from undergraduate coursework) in C, C++, and MATLAB.

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, April 2018

University of California, Berkeley

Berkeley, CA

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

SELECTED PRESENTATIONS

International Statistical Ecology Conference (ISEC)

July 2018

University of St Andrews

St Andrews, Fife, Scotland

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