Peng Chen

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Education

The Pennsylvania State University, GPA 3.9 / 4.0 — University Park, PA

- Dule-Tile Ph.D. major in Industrial Engineering & Operations Research — August 2020
- Ph.D. minors in Statistics & Mathematics
- Dissertation Advisor: Prof. Enrique Del Castillo, Distinguished Professor of Industrial Engineering and Professor of Statistics

University of Missouri – Columbia — Columbia, MO

- M.S. with Outstanding Master Student Award in Industrial Engineering — May 2015

East China University of Science and Technology — Shanghai, China

- B.S. with National Scholarship Award in Electrical Engineering — May 2013
- B.A. in Financial Management

Coursework

Mathematics: linear algebra, real analysis, functional analysis, numerical computations at Penn State

Optimization: linear programming, convex optimization, nonlinear programming at Penn State

Statistics: linear models, theory of statistics, stochastic process, data mining, spatial statistics at Penn State

Deep Learning: deep learning specialization at deeplearning.ai

Skills

Machine Learning: deep learning, traditional shallow learning methods

Statistics: process optimization & experiment design, time series & quality control, Bayesian inferences

Computer: proficient in R, Python, SQL, Excel

Finance: cashflow analyses, basic accounting, financial statements interpretation

Experience

Axtria – Ingenious Insights — Berkeley Heights, NJ

Senior Associate — August 2020 - Present

Penn State Engineering Statistics and Machine Learning Laboratory — University Park, PA

Research Assistant — 2017 - 2020

- Developed state-of-the-art algorithms to compute frequentist confidence and Bayesian credible regions on the optima of various high dimensional parametric and nonparametric response models.
- Co-authored R package OptimaRegion.
- Investigated the US IEOR faculty hiring network with an exponential random graph model.

Department of Industrial Engineering at Penn State University — University Park, PA

Instructor of Stochastic Models in Operations Research — Fall 2019

- Served as the instructor of this core IE course for 132 undergraduate students.

- Independently developed lectures, computer simulations, homework assignments, and exams.
- Coordinated with the teaching assistant and the grader.

Teaching Assistant for Engineering Economics 2015 - 2017

- Held office hours and review sessions.
- Graded homework assignments and exams.

University of Missouri – Columbia (MU) Columbia, MO

Graduate Researcher 2013 - 2015

- Modeled Toyota's Kanban system as a Markov chain and optimized it using simulated annealing.
- Designed a management information system for a medical equipment company in Shanghai, China.
- Led a group of 8 people from difference disciplines to develop a wireless heartbeat sensor.

East China University of Science and Technology (ECUST) Shanghai, China

President of Electrical Engineering Undergraduate Community 2009 - 2012

- Effectively carried out daily administrative tasks, such as writing activity plans and reports, and facilitating communications between faculty and community members.
- Paired up study buddies to help fellow students achieve better academic performance.
- Organized group activities such as multi-university get-togethers and road trips.

Publications

- Del Castillo, E., Chen, P., Meyers, A., Hunt, J., & Rapkin, J. (2020). Confidence regions for the location of response surface optima: The R package OptimaRegion. *Communication in Statistics – Simulation and Computation*. (accepted)
- Del Castillo, E., Chen, P., Meyers, A., Hunt, J., & Rapkin, J. (2019). OptimaRegion: Confidence regions for Optima. R package version 1.1. https://CRAN.R- project.org/package=OptimaRegion.
- Del Castillo, E., Chen, P., & Meyers, A. (2020). OptimaRegion_Functions (added spatial processes, Bayesian credible regions, sequential implementations, and dimension reductions). https://github.com/PengChenEngineer/OptimaRegion_Functions.
- Del Castillo, E., Meyers, A., & Chen, P. (2020). Exponential random graph modeling of a faculty hiring network: The IEOR case. *IISE Transactions*, 52(1), 43-60.

Honors

- MU outstanding graduate student (2015)
- Shanghai outstanding undergraduate student (2013)
- ECUST prime scholarship (2012)
- TOSHIBA scholarship (2012)
- SIMENS scholarship (2011)
- Chinese national scholarship (2011)
- ECUST outstanding student leader (2010)