

Ali Hassanzadeh-Kalshani

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Education

Ph.D., Operations and Decision Technologies Expected: June 2021
Paul Merage School of Business, University of California Irvine, Irvine, CA
Dissertation: “New Operations Research Models for Emerging Problems in Production, Service, and Sports”
Advisors: Dr. John Turner, Dr. Luyi Gui

M.Sc., Industrial Engineering July 2015
College of Engineering, Koç University, Istanbul, Turkey
Thesis: “Optimization-based Algorithms for the Graph Partitioning Problem”
Advisor: Dr. Emre Alper Yıldırım

B.Sc., Industrial Engineering June 2013
Department of Industrial Engineering, Sharif University of Technology, Tehran, Iran

Research Interests

Applied Operations Research • Resource Sharing • Data-driven Optimization • Business Analytics • Machine Learning • Combinatorial Optimization • Graph Theory • Algorithm Design

Teaching Interests

Management Science • Operations Management • Supply Chain Management • Large-scale Optimization • Network Models and Algorithms • Predictive Analytics • Statistics • Intro to Machine Learning

Research Experience

Publications

- **How to Conclude a Suspended Sports League?**, invited for re-submission, *Manufacturing & Service Operations Management*, (with Mojtaba Hosseini and John Turner)
- **Analysis of Pricing Mechanisms under the Resource Exchange Economy**, Working Paper (with John Turner and Luyi Gui)
- **A Benders Decomposition Algorithm for the Minimum Graph Bisection Problem**, Manuscript under Preparation (with Mojtaba Hosseini)
- **Predicting Changes in Stock Market Indices Using Daily News Headlines**, available at SSRN (ssrn.com/abstract=3685530) (with Ahmad Razavi and Reza Asadi)

Research in Progress

- “Predicting the Outcome of NBA Games Using Multiple Kernel Learning”, with Mojtaba Hosseini
- “Two Optimization-based Algorithms for the Graph Partitioning Problem”, with Emre Alper Yıldırım
- “An Ant Colony Optimization Algorithm for the Graph Partitioning Problem”, with Mojtaba Hosseini
- “How to Pick Rookie Players in the NBA Annual Draft? A Statistical Analysis!”

Honors and Awards

- Division of Teaching Excellence and Innovation (**DTEI Fellowship Award**), UC Irvine, June 2020
- **Ray Watson Doctoral Fellowship Award**, Paul Merage School of Business, UC Irvine, May 2019
- **Third Best Poster Presentation Award**, Annual Research Festival, Paul Merage School of Business, May 2018
- **Management Fellowship Award**, highest score in PhD comprehensive exam, Paul Merage School of Business, UC Irvine, Sept. 2017
- **Five-year Doctoral Fellowship**, Paul Merage School of Business, UC Irvine, Sept. 2015
- **TUBITAK Project (112M870) Scholarship**, Koç University, Istanbul, Turkey, Sept. 2013
- **Ranked 218th** amongst more than 400,000 students in the Iranian Nationwide University Entrance Exam, June 2008

Conference Presentations

Concluding a Suspended Sports League:

- INFORMS 2020 Virtual Annual Meeting (Track WC39) Nov. 2020

Pricing Mechanisms in Resource Exchange Economy:

- INFORMS 2017 Annual Meeting, Houston, TX (Track WB35) Oct. 2017
- Annual Research Festival, Paul Merage School of Business May 2018
- INFORMS 2019 Annual Meeting, Seattle, WA (Track TC55) Oct. 2019
- School of Business, Aarhus University, Aarhus, Denmark Nov. 2019
- Faculty of Engineering, Lund University, Lund, Sweden Dec. 2019

Optimization-based Algorithms for the Graph Partitioning Problem:

- Annual Research Festival, Paul Merage School of Business May 2016
- INFORMS 2017 Annual Meeting, Houston, TX (Track WC69) Oct. 2017

Teaching Experience

Recitation Leader/Head Teaching Assistant:

- Management Science (undergrad & MBA core), UC Irvine – (Fall 2017-'18-'19, Winter '18-'19-'20, Spring '16-'17-'18-'19, Summer '17-'18)
- Statistics for Management (MBA core), UC Irvine (Winter 2016, Summer '16)
- Predictive Analytics (MBA elective), UC Irvine (Fall '17-'18, Spring '17-'20)
- Operations Management (MBA elective), UC Irvine (Fall 2016)

Teaching Assistant:

- Analytical Decision Making (MBA elective), UC Irvine (Winter '18-'19)
- Operational Excellence (MBA elective), UC Irvine (Fall '20)
- Discrete Mathematical Structures (undergrad core), Koç University (Fall '13-'14)
- Introduction to Statistics (undergrad core), Koç University (Spring '14)
- Logistics Management (undergrad & grad elective), Koç University (Spring '15)

Teaching Workshops:

- Transition to Remote Teaching (attended 8 workshops), UC Irvine Summer 2020
- TA Professional Training and Development Program (two-day workshop), UC Irvine Sept. 2015

Consulting and Work Experience

Data Science Intern - BAYER Crop Science, Saint Louis, MO Summer 2019

- Learned about seed production business, and visited multiple Monsanto campuses in multiple states.
- Learned how to work with large-scale datasets and produce visualizations through DataCamp courses.
- Designed two algorithms for large-scale optimization problems in seed processing centers.
- Developed a plan to assign planting fields of corn and soybean of different grades to various locations across the US and Canada, and presented managerial insights.

Systems Analyst (volunteer work) - Cohealo Inc., Boston, MA Winter & Spring 2019

- Learned about resource exchange dynamics in healthcare industry in Boston.
- Built a decision support system for managing shared medical equipment within a network, in order to maximize equipment utilization and minimize patient rejection at hospitals due to lack of resources.

Marketing Consultant - Sharif Samane Co., Tehran, Iran Fall '12 – Summer '13

- Developed and executed a marketing plan for the promotion of a web-based office management system for dentists.
- Presented and showcased the product in the 53rd Iranian Dentistry Material and Equipment Fair.

Systems Analyst (Co-op Student) - Arsh Co., Tehran, Iran Spring – Fall '12

- Contributed to designing a business plan for an e-learning center, to get boosted as a startup.

Operations Analyst - Firooz Hygienic Group, Tehran, Iran Fall '11 – Spring '12

- Consulted with managers and technical staff to implement three Enterprise Resource Planning (ERP) modules in their production facility in Qazvin: sales, accounting, and production planning modules.

Quantitative Analyst - Alamafroze Industrial Group, Tehran, Iran Spring – Fall '11

- Improved the production and inventory management tool, built in MS Access.
- Learned about ISO 9001:2008 quality control standard in steel and aluminum manufacturing companies. Assisted on-site team with implementation plans.

Operations Analyst (Co-op Student) - SQS Co., Tehran, Iran Spring 2011

- Worked at “Gol Gohar” mine, the largest iron ore mine in the Middle East.
- Collected and analyzed data, and assisted the quality assurance team to improve process times and job scheduling in various stages of iron ore extraction at the mine.

Professional Service

- President of the PhD Students Association and student representative on the PhD Committee, Paul Merage School of Business, UC Irvine – (academic year 2020-'21)
- Member: INFORMS, MSOM
- Served as Division of Teaching Excellence and Innovation (DTEI) fellow to prepare “Remote Instruction Guide” for transitioning to virtual teaching, and to assist designing new course syllabi for hybrid and online classes at Paul Merage School of Business, UC Irvine – (Summer & Fall 2020)

Computer Skills

- **Programming:** Python, C#, R, MATLAB, Visual Basic (comfortable), Java, C++, Julia (familiar)
- **Optimization tools:** Gurobi, Concert Technology with CPLEX, AMPL, CVX, GAMS, Lingo
- **Statistical tools:** JMP Pro., MiniTab, Stata, SAS
- **Other:** Arena, Vensim, L^AT_EX, Excel
- **Concepts:** object-oriented programming, management information systems, data mining

Certificates

- UC Irvine Data Science Initiative Certificate (pending workshop presentation) Expected Winter 2021
- Certificate in Remote Instruction, UC Irvine October 2020
- Design of Experiments, TÜV INTERCERT (Cert. No. TUV/0611-088) June 2011
- Time Study in Mine, ASYS International Certification (Cert. No. Asys/2022011) September 2011

References

Dr. John Turner, Associate Professor
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