

CONTACT INFORMATION	Carey Business School Johns Hopkins University Washington DC – Baltimore Area, United States	Ali.Eshragh@jhu.edu
WEBSITE	Homepage Google Scholar LinkedIn	
CURRENT POSITION	Associate Professor in Business Analytics and Operations Management Carey Business School Johns Hopkins University, United States	
RESEARCH AFFILIATION	Institute for Data Intensive Engineering & Science (IDIES) Johns Hopkins University, United States	Faculty Member
	International Computer Science Institute (ICSI) University of California at Berkeley, United States	Affiliated Researcher
RESEARCH INTERESTS	Advanced Computing (Data Processing and Analysis Techniques), Artificial Intelligence (Machine Learning and Reinforcement Learning), Probabilistic Operations Research (Statistical Modeling and Stochastic Optimization), Business Analytics (Supply Chain Analytics)	
EDUCATION	Johns Hopkins University, USA	August 2027 (Expected)
	M.Sc. in Artificial Intelligence at Whiting School of Engineering	
	University of South Australia, Australia	August 2011
	Ph.D. in Applied Mathematics, Stochastic Operations Research Minor Applied Probability and Optimization	
	<ul style="list-style-type: none"> <li>• Thesis Topic: <i>Hamiltonian Cycles and the Space of Discounted Occupational Measures</i></li> </ul>	
	Sharif University of Technology, Iran	January 2004
	M.Sc. in Industrial Engineering, Stochastic Operations Research Minor Statistical Modeling and Stochastic Optimization – GPA: 89.0%	
	<ul style="list-style-type: none"> <li>• Thesis Topic: <i>Application of Decision on Beliefs in Response Surface Methodology</i></li> </ul>	
	Sharif University of Technology, Iran	September 2001
	B.Sc. in Industrial Engineering, Stochastic Operations Research Minor System Analysis – GPA: 87.5%	
	<ul style="list-style-type: none"> <li>• Thesis Topic: <i>A New Approach to Distribution Fitting: Decision on Beliefs</i></li> </ul>	
TRAINING AND CERTIFICATES	School of Computer Science, Carnegie Mellon University	November 2021
	Machine Learning: Fundamentals and Algorithms	
	<ul style="list-style-type: none"> <li>• 10-week online course</li> </ul>	
	Overall Grade: 100%	

Deep Learning Specialization – 5-month online program including five :

- Neural Networks and Deep Learning
- Improving Deep Neural Networks
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models

Overall Grade: 100%

#### HONORS AND AWARDS

1. *Staff Excellence Award–Values Award Category*, University of Newcastle, 2020.
2. *Australian Society for Operations Research Rising Star Award*, Australia, 2017.
3. *Teaching Excellence and Contribution to Student Learning Team Award – Runner-up*, University of Newcastle, 2016.
4. *South Australia Science Excellence Award in the Category of PhD Research Excellence–Physical Sciences, Mathematics and Engineering – Runner-up*, Government of South Australia, Australia, 2011.
5. *B.H. Neumann Prize for the Best Student Talk – Runner-up*, The 54<sup>th</sup> Annual Australian Mathematical Society Conference, Australia, 2010.
6. *Endeavour International Postgraduate Research Scholarship Award* (Covering Tuition Fees, Family Insurance and a Tax-Free Living Allowance of AU\$27,222 per annum Over the Course of PhD Study), The Australian Government, Australia, 2008-2011.
7. *Best Paper Award*, The 5<sup>th</sup> International Industrial Engineering Conference, Iran, 2005.
8. *Best Bachelor Final Project Award*, Awarded by the R&D Department of Schlumberger Company (US\$1,000), France, 2002.
9. *Ranked First* (out of Approximately 5000 Entrants) in the Highly Competitive National Masters Entrance Exam of Iranian Universities, 2001.
10. *Best Student Award*, Sharif University of Technology, Iran, 2001.

#### RESEARCH GRANTS: AU\$2,752,088 (EQUIVALENT TO US\$1,987,407) TOTAL AWARDED FUNDS

1. Lead-Chief Investigator, Large Markov Decision Processes and Combinatorial Optimization, *Australian Research Council (ARC) Discovery Project*, AU\$383,000, 2022–2024.
2. Lead-Chief Investigator, Stochastic Analysis of the COVID-19 Population, *ARC Centre of Excellence for Mathematical and Statistical Frontiers (ACEMS)*, AU\$6,890, 2020–2022.
3. Chief Investigator, Big Time Series Data and Randomized Numerical Linear Algebra, *ACEMS*, AU\$11,580, 2020.
4. Chief Investigator, Approximate Solutions to Large Markov Decision Processes, *ACEMS*, AU\$12,000, 2019.

5. Chief Investigator, The Higher Education Participation and Partnerships Grant, *Australian Government, Department of Education and Training*, AU\$161,151, 2016.
6. Chief Investigator, The Industrial Transformation Training Centre for Food and Beverage Supply Chain Optimization, *ARC Industrial Transformation Training Centre*, AU\$2,119,872, 2016-2020.
7. Lead-Chief Investigator, Rapidly Mixing Markov Chains and the Hamiltonian Cycle Problem, *The Priority Research Centre for Computer-Assisted Research Mathematics and its Applications (CARMA)*, AU\$30,000, 2014-2016.
8. Lead-Chief Investigator, The New Staff Grant, *University of Newcastle*, AU\$10,000, 2014.
9. Chief Investigator, Application of Simulation-Based Optimization Algorithms in Sustainable Logistic and Supply Chain Management, *School of Management*, University of South Australia, AU\$10,000, 2011.
10. Chief Investigator, Application of Non-Smooth Optimization Methods for Hamiltonian Cycle Problem, *Barbara Hardy Institute*, University of South Australia, AU\$3,500, 2010.
11. Lead-Chief Investigator, An International Travel Grant, *University of South Australia*, Australia, AU\$4,095, 2009.

RESEARCH  
OUTCOMES:  
SUBMITTED AND  
WORKING PAPERS

1. A. Fattahi, **A. Eshragh**, B. Aslani, and M. Rabiee, Ranking Vectors Clustering: Theory and Applications, 2024.
2. E. Harris, **A. Eshragh**, B.P. Lamichhane, and E. Stojanovski, Efficient Leverage Score Sampling Algorithm for the Minimum Volume Covering Ellipsoid Problem in Big Data, 2024.
3. G. Dunn, H. Charkhgard, **A. Eshragh**, and S. Mahmoudinazlou, Deep Reinforcement Learning for Picker Routing Problem in Warehousing, arXiv preprint arXiv:2402.03525, 2024.
4. **A. Eshragh**, M.P. Skerrittd, B. Salvy, and T. McCallum, Optimal Experimental Design for a Partially Observable Pure Birth Process, arXiv preprint arXiv:2402.09772, 2024.
5. **A. Eshragh**, L. Yerbury, A. Nazari, F. Roosta, and M.W. Mahoney, SALSA: Sequential Approximate Leverage-Score Algorithm with Application in Analyzing Big Time Series Data, arXiv preprint arXiv:2401.00122, 2023.
6. V. Dewanto, G. Dunn, **A. Eshragh**, M. Gallagher and F. Roosta, Average-reward Model-free Reinforcement Learning: A Systematic Review and Literature Mapping, arXiv preprint arXiv:2010.08920, 2023.
7. H. Charkhgard, .H Rastegar Moghaddam, **A. Eshragh**, and S Mahmoudinazlou, Solving Hard Bi-Objective Knapsack Problems Using Deep Reinforcement Learning, SSRN preprint ssrn.4585010, 2023.
8. S. Alizamir, **A. Eshragh**, K. Bandara, and F. Irvani, A Hybrid Statistical-Machine Learning Approach for Analyzing Online Customer Behavior: An Empirical Study, arXiv preprint arXiv:2212.02255, 2023.

RESEARCH  
OUTCOMES:  
PUBLISHED  
PAPERS

9. **A. Eshragh**, G. Livingston, T.M. McCann and L. Yerbury, Rollage: Efficient Rolling Average Algorithm to Estimate ARMA Models for Big Time Series Data, arXiv preprint arXiv:2103.09175, 2023.
10. **A. Eshragh**, O.D. Pietro and M. Saunders, Toeplitz Least Squares Problems, Fast Algorithms and Big Data, arXiv preprint arXiv:2112.12994, 2021.
1. A.S. Altamiranda, H. Charkhgard, I. Dayarianb, **A. Eshragh** and S. Javadia, Learning to Project in Multi-objective Binary Linear Programming, To Appear in *Optimization Letters*, 2024.
2. **A. Eshragh**, F. Roosta, A. Nazari and M. Mahoney, LSAR: Efficient Leverage Score Sampling Algorithm for the Analysis of Big Time Series Data, *Journal of Machine Learning Research*, 23:1-36, 2022.
3. **A. Eshragh**, B. Ganim, T. Perkins and K. Bandara, The Importance of Environmental Factors in Forecasting Australian Power Demand, *Environmental Modeling & Assessment*, 27:1–11, 2021.
4. M. Abolghasemi, J. Hurley, **A. Eshragh** and B. Fahimnia, Demand Forecasting in the Presence of Systematic Events: Cases in Capturing Sales Promotions, *International Journal of Production Economics*, 230:107892, 2020.
5. **A. Eshragh**, S. Alizamir, P. Howley and E. Stojanovski, Modeling the Dynamics of the COVID-19 Population in Australia: A Probabilistic Analysis, *PLOS-One*, 15(10):e0240153, 2020.
6. **A. Eshragh**, R. Esmailbeigi and R. Middleton, An Analytical Bound on the Fleet Size in Vehicle Routing Problems: A Dynamic Programming Approach, *Operations Research Letters*, 48(3):350-355, 2020.
7. **A. Eshragh**, J. Filar, T. Kalinowski and S. Mohammadian, Hamiltonian Cycles and Subsets of Discounted Occupational Measures, *Mathematics of Operations Research*, 45(2):403-795, 2020.
8. H. Charkhgard and **A. Eshragh**, A New Approach to Select the Best Subset of Predictors in Linear Regression Modeling: Bi-Objective Mixed Integer Linear Programming, *ANZIAM Journal*, 62(1):64-75, 2019.
9. B. Fahimnia, H. Davarzani and **A. Eshragh**, Performance Comparison of Three Meta-Heuristic Algorithms for Planning of a Complex Supply Chain, *Computers and Operations Research*, 89:241-252, 2018.
10. R. Esmailbeigi, **A. Eshragh**, R. Garcia-Flores and M. Heydar, Whey Reverse Logistics Network Design: A Stochastic Hierarchical Facility Location Model, *Proceedings of the 22<sup>nd</sup> International Congress on Modeling and Simulation*, Hobart, Australia, December 2017.
11. K. Avrachenkov, **A. Eshragh** and J. Filar, On Transition Matrices of Markov Chains Corresponding to Hamiltonian Cycles, *Annals of Operations Research*, 243(1):19-35, 2016.
12. N.G. Bean, **A. Eshragh** and J.V. Ross, Fisher Information for a Partially-Observable Simple Birth Process, *Communications in Statistics: Theory and Methods*, 45(24):7161-7183, 2016.

13. N.G. Bean, R. Elliott, **A. Eshragh** and J.V. Ross, On Binomial Observation of Continuous-Time Markovian Population Models, *Journal of Applied Probability*, 52:457-472, 2015.
14. B. Fahimnia, J. Sarkis, A. Choudhary and **A. Eshragh**, Tactical Supply Chain Planning Under a Carbon Tax Policy Scheme: A Case Study, *International Journal of Production Economics*, 164:206-215, 2015.
15. B. Fahimnia, J. Sarkis and **A. Eshragh**, A Trade-off Model for Green Supply Chain Planning: A Leanness-Versus-Greenness Analysis, *OMEGA*, 54:173-190, 2015.
16. **A. Eshragh**, Fisher Information, Stochastic Processes and Generating Functions, *Proceedings of the 21<sup>st</sup> International Congress on Modeling and Simulation*, Gold Coast, Australia, December 2015.
17. **A. Eshragh** and J. Filar, Hamiltonian Cycles, Random Walks and the Geometry of the Space of Discounted Occupational Measures, *Mathematics of Operations Research*, 36(2):258-270, 2011.
18. **A. Eshragh**, J. Filar and M. Haythorpe, A Hybrid Simulation-Optimization Algorithm for the Hamiltonian Cycle Problem, *Annals of Operations Research*, 189:103–125, 2011.
19. K. Avrachenkov, **A. Eshragh** and J. Filar, Markov Chains and Hamiltonian Transition Matrices, *Proceedings of the 5<sup>th</sup> International ICST Conference on Performance Evaluation Methodologies and Tools*, Paris, France, 2011.
20. **A. Eshragh**, J. Filar and A. Nazari, A Projection-Adapted Cross Entropy (PACE) Method for Transmission Network Planning, *Energy Systems*, 2(2):189-208, 2011.
21. **A. Eshragh** and M. Modarres, A New Approach to Distribution Fitting: Decision on Beliefs, *Journal of Industrial and Systems Engineering*, 3(1):56-71, 2009.
22. H. Mahlooji, **A. Eshragh**, H. Abouee Mehrizi and N. Izady, Uniform Fractional Part: A Simple Fast Method for Generating Continuous Random Variates, *Scientia Iranica*, 15(5):613-622, 2008.

TALKS IN  
INTERNATIONAL  
CONFERENCES

1. An Efficient Algorithm for Approximating ARMA Model Fitting in Large-scale Time Series Data, *The 43<sup>rd</sup> International Symposium on Forecasting (ISF)*, Virginia, USA, 2023.
2. Efficient Leverage Score Sampling Algorithm for the Analysis of Big Time Series Data, *The 2021 INFORMS Annual Meeting*, Anaheim/Online, USA, 2021.
3. A New Fast Algorithm to Approximate the Leverage Scores of Big Time Series Data: Theory and Application, *The 20<sup>th</sup> INFORMS Applied Probability Society Conference*, Brisbane, Australia, 2019.
4. Optimal Experimental Design For a Partially Observable Simple Birth Process, *The 2018 INFORMS Annual Meeting*, Phoenix, USA, 2018.
5. A New Approach to Select the Best Subset of Predictors in Linear Regression Modeling, *The 61<sup>st</sup> Australian Mathematical Society Conference*, Sydney, Australia, 2017.
6. Fisher Information, Stochastic Processes and Generating Functions, *The 18<sup>th</sup> INFORMS Applied Probability Conference*, Istanbul, Turkey, 2015.

7. Fisher Information, Stochastic Processes and Generating Functions, *The 21<sup>st</sup> International Congress on Modeling and Simulation*, Gold Coast, Australia, 2015.
8. Approximating the Fisher Information for a Partially-Observable Growing Population, *ICERM Workshop on Challenges in 21<sup>st</sup> Century Experimental Mathematical Computation*, Providence, USA, 2014.
9. Random Walks, Polyhedra and Hamiltonian Cycles, *CARMA Workshop on Optimization, Nonlinear Analysis, Randomness & Risk*, Newcastle, Australia, 2014.
10. On Binomial Observations of Continuous-Time Markov Chains, *The 57<sup>th</sup> Australian Mathematical Society Conference*, Sydney, Australia, 2013.
11. Fisher Information for a Partially-Observable Simple Birth Process, *Australia and New Zealand Applied Probability Workshop*, Brisbane, Australia, 2013.
12. Optimal Observation Times for a Partially-Observable Pure Birth Process, *The 26<sup>th</sup> European Conference on Operational Research*, Rome, Italy, 2013.
13. Hamiltonian Cycles, Extreme Points and Rapidly Mixing Markov Chains, *Hamiltonian Cycle, Traveling Salesman and Related Optimization Problems Workshop*, Adelaide, Australia, 2012.
14. Optimal Experimental Design for a Pure Birth Process with Incomplete Information, *The 25<sup>th</sup> European Conference on Operational Research*, Vilnius, Lithuania, 2012.
15. A Modified Cross Entropy Method for the Optimization of an Environmentally Sustainable Supply Chain, *The 25<sup>th</sup> European Conference on Operational Research*, Vilnius, Lithuania, 2012.
16. Optimal Observations of a Growing Population, *The 48<sup>th</sup> Australian and New Zealand Industrial and Applied Mathematics Conference*, Warrnambool, Australia, 2012.
17. Polynomial Limit Control Algorithm to Identify Nearly all Cubic, non-Hamiltonian, Graphs, *The 19<sup>th</sup> Triennial Conference of the IFORS*, Melbourne, Australia, 2011.
18. On Random Graphs, Random Walks and the Hamiltonian Cycle Problem, *The 54<sup>th</sup> Annual Australian Mathematical Society Conference*, Brisbane, Australia, 2010.
19. A Random Pivoting Algorithm for the Hamiltonian Cycle Problem, *The 24<sup>th</sup> European Conference on Operational Research*, Lisbon, Portugal, 2010.
20. Investigating Hamiltonian Cycles through Random Walks, *The 46<sup>th</sup> Australian and New Zealand Industrial and Applied Mathematics Conference*, Queenstown, New Zealand, 2010.
21. A New Random Algorithm for the Hamiltonian Cycle Problem, *The 23<sup>rd</sup> European Conference on Operational Research*, Bonn, Germany, 2009.
22. A Hybrid Simulation-Optimization Algorithm for the Hamiltonian Cycle Problem, *The 45<sup>th</sup> Australian and New Zealand Industrial and Applied Mathematics Conference*, Caloundra, Australia, 2009.
23. A New Approach to Response Surface Methodology, *The 5<sup>th</sup> International Industrial Engineering Conference*, Tehran, Iran, 2005.
24. A New Approach to Distribution Fitting: Decision on Beliefs, *The 53<sup>rd</sup> Session of International Statistical Institute*, Seoul, South Korea, 2001.
25. Order Statistics and Their Applications, *The 1<sup>st</sup> Iranian Statistical Student Conference*, Tehran, Iran, 1999.

INVITED SEMINARS

25. Efficient Models and Algorithms for the Analysis of Big Time Series Data, *International Computer Science Institute*, University of California at Berkeley, USA, April 13, 2022.
26. Randomized Numerical Linear Algebra and the Analysis of Big Time Series Data, *Simons Institute for the Theory of Computing*, University of California at Berkeley, USA, December 16, 2019.
27. Efficient Leverage Score Sampling for the Analysis of Big Time Series Data, *School of Mathematics and Statistics*, University of Melbourne, Australia, October 21, 2019.
28. Hamiltonian Cycles, Polytopes and Random Walks, *Colloquium–School of Mathematics and Physics*, University of Queensland, Australia, February 18, 2019.
29. Hamiltonian Cycles and Subsets of Discounted Occupational Measures, *Linear Algebra and Optimization Seminars–Institute for Computational & Mathematical Engineering*, Stanford University, USA, October 25, 2018.
30. Hamiltonian Cycles, Polytopes and Markov Chains, *Simons Institute for the Theory of Computing*, University of California at Berkeley, USA, February 19, 2016.
31. Fisher Information, Stochastic Processes and Generating Functions, P, *Colloquium–School of Mathematics and Statistics*, University of New south Wales, Australia, October 8, 2015.
32. Computational Complexity of the Fisher Information, *INRIA–Paris*, France, October 6, 2014.
33. Binomial Observations, Fisher Information and Optimal Sampling Times, *Colloquium–School of Mathematical and Physical Sciences*, University of Newcastle, Australia, November 14, 2013.
34. P or NP: That Is the Question, *Undergraduate Seminar–School of Mathematical Sciences*, University of Adelaide, Australia, May 22, 2012.
35. Can Hamiltonian Cycle Problem on a Random Graph be Solved with High Probability in a Polynomial Time?, *Colloquium–Faculty of Information Technology*, Monash University, Australia, February 29, 2012.
36. Hamiltonian Cycles and Random Walks, *Colloquium–School of Computer Science*, University of Adelaide, Australia, December 7, 2011.
37. Hybrid Simulation-Optimization Algorithm for Combinatorial Optimization Problems, *Divisional Research Day–University of South Australia*, Australia, September 10, 2010.
38. Hamiltonian Cycles, Random Walks and Discounted Occupational Measures, *Department of Applied Mathematics*, University of Twente, The Netherlands, June 22, 2010.
39. Decision on Beliefs: Concepts and Applications, *Indian Statistical Institute–New Delhi*, India, March 2004.

TEACHING  
EXPERIENCE

**List of Courses:**

- *Johns Hopkins Carey Business School:* Statistical Analysis, Simulation for Business Applications
- *University of Newcastle:* Business Decision Making, Supply Chain Optimization, Forecasting with Linear Time Series Models, Deterministic and Stochastic Optimisation, Data Analytics for Business Intelligence, Markov Chains and Their Applications, Engineering Statistics, and Statistical Reasoning and Literacy.

**Course Development:**

- Designing and creating all teaching and assessment materials for a newly established elective course titled *Forecasting Models for Business Intelligence*, intended for Master of Business Analytics and Risk Management students, Johns Hopkins Carey Business School, 2024.
- Developing all teaching and assessment materials for the core course, *Statistical Analysis*, offered to Business students, Johns Hopkins Carey Business School, 2022.
- Designing and creating all teaching and assessment materials for the newly established third-year core course, *Deterministic and Stochastic Optimization*, offered to Mathematics, Statistics, Engineering, and Business students, University of Newcastle, 2021.
- Designing and creating all teaching and assessment materials for the newly established second-year core course, *Engineering Statistics*, offered to Electronic and Electrical Engineering students, University of Newcastle, 2018-2019.
- Designing all teaching and assessment materials for the first-year core course, *Business Decision Making*, offered to Business students in the blended mode, University of Newcastle, 2016-2017.
- Developing the course syllabus, as well as all teaching and assessment materials, for the elective third-year/graduate course, *Forecasting with Linear Time Series Models*, offered to Mathematics, Statistics, Engineering, and Business students, University of Newcastle, 2016-2021.
- Developing all teaching and assessment materials for the second-year core course, *Engineering Mathematics and Statistics*, offered to Electrical Engineering and Computer Science students, University of Newcastle, 2014-2015.
- Developed all teaching and assessment materials for the compulsory graduate course *Statistics in Engineering*, offered to Engineering students, University of Adelaide, 2013.

SUPERVISING  
EXPERIENCE

- PhD Student 2022-2025  
Thesis Title: *New Algorithms for Analysing Big Time Series Data: Nexus Between Classical Statistical Models and Modern Data Science Methods*
- PhD Student 2022-2025  
Thesis Title: *Deep Reinforcement Learning for Combinatorial Optimization Problems*



- PhD Student 2020-2024  
Thesis Title: *Efficient Algorithms to Detect Outliers in Big Data*
- Honours Student 2021-2022  
Thesis Title: *Solution Algorithms for Large Markov Decision Processes*
- Honours Student 2021  
Thesis Title: *Toeplitz Least Squares Problems, Fast Algorithms and Big Data*
- Honours Student 2020  
Thesis Title: *A New Algorithm for Fitting ARMA Models to Big Time Series Data*
- Honours Student 2020  
Thesis Title: *Rollage: Efficient Rolling Average Algorithm to Estimate ARMA Models for Big Time Series Data*
- Honours Student 2019  
Thesis Title: *A New State Aggregation Algorithm to Solve Large Markov Decision Processes*
- PhD Student 2018-2021  
Thesis Title: *Policy Optimization in Reinforcement Learning*
- Honours Student 2017-2018  
Thesis Title: *Exploration of Flu-tracking Approaches Using Time Series Models*
- Honours Student 2016-2017  
Thesis Title: *Optimal Observation Times, Fisher Information and Generating Functions*

POSITIONS AND  
PROFESSIONAL  
EXPERIENCES

- Associate Professor in Business Analytics and Operations Management 2022-Present  
Carey Business School, Johns Hopkins University, United States
- Senior Lecturer in Data Science – Honorary 2022-Present  
School of Information and Physical Sciences, University of Newcastle, Australia
- Senior Lecturer in Data Science – Ongoing 2018-2022  
(Equivalent to Tenured Associate Professor in the U.S. System)  
School of Information and Physical Sciences, University of Newcastle, Australia
- Lecturer in Statistics and Optimization – Ongoing 2014-2017  
School of Mathematical and Physical Sciences, University of Newcastle, Australia
- Lecturer in Stochastic Operations Research – Fixed Term 2013-2014  
School of Mathematical Sciences, University of Adelaide, Australia
- Postdoctoral Research Associate 2011-2013  
*Working on the Australian Research Council (ARC) Discovery Project Entitled ‘New Methods for Improving Active Adaptive Management in Biological Systems’*  
School of Mathematical Sciences, University of Adelaide, Australia

- Consultant

Several Industries and Organizations Including Coca-Cola Amatil, Nestlé, and Sanitarium Health & Wellbeing Australia

PROFESSIONAL SERVICES

- *Program Director*, Graduate Certificate in Data Analytics/Science, University of Newcastle. 2021
- *Associate Editor and Member of Editorial Board*, Environmental Modeling & Assessment, Springer Journal. 2020-Present
- *Chair and Organizer*, Data Science Down Under International Workshop, Newcastle. 8-12 December, 2019
- *Deputy Head of School – Industry and Engagement Coordinator*, School of Information and Physical Sciences, University of Newcastle. 2019-2021
- *Academic Representative on the Organizing Committee*, Quarterly Central Coast and Hunter Area Supply Chain & Logistics Forum. 2019-2021
- *Member of the Faculty of Science Board*, University of Newcastle. 2019-2020
- *Chair and Organizer*, Applied Probability, Combinatorics and Optimization Workshop, Newcastle. 17 December, 2016
- *Member of the Faculty of Science Board*, University of Newcastle. 2016-2017
- Member of *Progress and Appeals Committee*, Faculty of Science, University of Newcastle. 2016-2021
- *Ph.D. Students Coordinator*, School of Mathematical and Physical Sciences, University of Newcastle. 2014-2017
- *Organizer*, Hamiltonian Cycle and Traveling Salesman Problems: Theory and Computation Workshop, Adelaide. 14-15 December, 2012
- *Convener*, Stochastic Lunch: Fortnightly Research Presentations Meetings, School of Mathematical Sciences, University of Adelaide. 2012
- *Returning Officer*, Australian and New Zealand Industrial and Applied Mathematics (ANZIAM) Division. 2012-2014
- Refereeing for Journals: *Annals of Applied Statistics*, *Annals of Operations Research*, *ANZIAM Journal*, *Environmental Modeling & Assessment*, *International Journal of Production Economics*, *International Journal of Production Research*, *Journal of Applied Probability*, *Journal of the American Statistical Association*, *Management Science*, *Mathematics of Operations Research*, *Operations Research*, *Queueing Systems*, *Random Structures and Algorithms*. 2009-Present
- Refereeing for Conferences: *International Conference on Machine Learning (ICML)* 2018-Present

PROFESSIONAL AFFILIATIONS

- Institute for Operations Research and the Management Sciences (INFORMS)
- International Institute of Forecasting (IIF)
- Australian Society for Operations Research (ASOR)

## SPECIAL SKILLS

### Software Skills:

- Mathematical Packages: *Matlab, Mathematica*
- Statistical Packages: *R, SPSS*
- Optimization Packages: *CPLEX, Lingo*
- Discrete-event Simulation Packages: *Arena, Enterprise Dynamics*
- Programming Languages: *C, Python*
- Others: *L<sup>A</sup>T<sub>E</sub>X, MS-Office*

### Languages:

- Persian (Native)
- English (Fluent)
- French (Elementary)