Chrysafis Vogiatzis

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CONTACT INFORMATION	Transportation Building 211 Industrial and Enterprise Systems Engineering University of Illinois Urbana-Champaign Urbana, IL 61801, USA	mobile: +1 352 346 0074 e-mail: chrys@illinois.edu web: vogiatzis.web.illinois.edu web: chvogiat.github.io

ACADEMIC INTERESTS
Operations research, mathematical programming, combinatorial optimization, network optimization, evacuation and disaster management.

EDUCATION

Department of Industrial and Systems Engineering,
University of Florida, Gainesville, FL, USA

- *Ph.D.* in Industrial and Systems Engineering **2014**
  Dissertation: **Exact and Heuristic Approaches to Solving Sensor Placement, Routing, and Tracking Problems.** Advisor: Dr. Panos M. Pardalos
- *M.Sc.* in Industrial and Systems Engineering **2012**

Department of Electrical and Computer Engineering,
Aristotle University of Thessaloniki, Thessaloniki, Greece

- *Dipl.Eng.* in Electrical and Computer Engineering **2009**
  Thesis: **Iterative distributed decomposition algorithm for solving large–scale transportation problems.** Advisor: Dr. Athanasios Migdalas.

ACADEMIC POSITIONS

Teaching Associate Professor	Industrial and Enterprise Systems Eng. University of Illinois Urbana-Champaign Urbana, IL	Aug 2023–
Director of online & professional programs	Industrial and Enterprise Systems Eng. University of Illinois Urbana-Champaign Urbana, IL	Aug 2022–
Teaching Assistant Professor	Industrial and Enterprise Systems Eng. University of Illinois Urbana-Champaign Urbana, IL	Aug 2019–Jul 2023
Assistant Professor	Industrial and Systems Eng. North Carolina A&T State University Greensboro, NC	Jan 2018–Aug 2019
Assistant Professor	Industrial and Manufacturing Eng. North Dakota State University Fargo, ND	Aug 2015–Jan 2018

PUBLICATIONS All student names are followed by an asterisk. Undergraduate student names have two asterisks.

JOURNAL ARTICLES

J27. D. Edwards*, F. Idoko*, C. **Vogiatzis**, L. Davis, P. Mirchandani, Determining optimal fuel delivery strategies under uncertainty, Socio-Economic Planning Sciences, accepted, 2023.

J26. K. Marler*, R. Yoshida, and C. **Vogiatzis**. US Marine Corps Rapid Planning and Logistics Routing Against Uncertainty. *Naval Engineers Journal*, 135(1):115–125, 2023.

J25. H. Meda*, L. Davis, and C. **Vogiatzis**. A Graph Theoretical Approach Integrating Geospatial Information to Analyze Airport Network Disruptions. *International Journal of Disaster Risk Reduction*, 2023.

J24. R. Anzoom*, R. Nagi, and C. **Vogiatzis**. Uncovering illicit supply networks and their interfaces to licit counterparts. *IISE Transactions*, 2023.

J23. M. C. Camur*, T. C. Sharkey, and C. **Vogiatzis**. The stochastic pseudo-star degree centrality problem. *European Journal of Operational Research*, 2022.

J22. D. S. D. Purba*, E. Kontou, and C. **Vogiatzis**. Evacuation route planning for alternative fuel vehicles. *Transportation Research Part C: Emerging Technologies*, 143:103837, 2022.

J21. S. Rasti* and C. **Vogiatzis**. Novel centrality metrics for studying essentiality in protein-protein interaction networks based on group structures. *Networks*, 80(1):3–50, 2022.

J20. P. Urrutia*, D. Wren*, C. **Vogiatzis**, and R. Yoshida. SARS-CoV-2 Dissemination Using a Network of the US Counties. *Operations Research Forum*, 3(2):1–23, 2022.

J19. Y. Liu*, C. **Vogiatzis**, R. Yoshida, and E. Morman. Solving reward-collecting problems with UAVs: a comparison of online optimization and Q-learning. *Journal of Intelligent & Robotic Systems*, 104(2):1–14, 2022.

J18. M. C. Camur, T. Sharkey, and C. Vogiatzis. The star degree centrality problem: A decomposition approach. *INFORMS Journal on Computing*, 34(1):93–112, 2022.

J17. R. Anzoom, R. Nagi, and C. Vogiatzis. A review of research in illicit supply-chain networks and new directions to thwart them. *IISE Transactions*, 54(2):134–158, 2021.

J16. M. Sarowar*, C. **Vogiatzis**, and N. Alam. A primal-dual interior point method for a novel type-2 second order cone optimization. *Results in Control and Optimization*, 2021.

J15. A. F. Shahraki*, O. P. Yadav, and C. **Vogiatzis**. Selective maintenance optimization for multi-state systems considering stochastically dependent components and stochastic imperfect maintenance actions. *Reliability Engineering & System Safety*, 196:106738, 2020.

J14. A. Rahim Taleqani*, C. **Vogiatzis**, and J. Hough. Maximum closeness centrality-clubs: A study of dock-less bike sharing. *Journal of Advanced Transportation*, 2020, 2020.

J13. N. M. A. M. A. Ghani*, J. G. Szmerekovsky, and C. **Vogiatzis**. Plant capacity level and location as a mechanism for sustainability in biomass supply chain. *Energy Systems*, pages 1–35, 2019.

J12. C. **Vogiatzis** and M. C. Camur*. Identification of essential proteins using induced stars in protein–protein interaction networks. *INFORMS Journal on Computing*, 31(4):703–718, 2019.

J11. T. I. Faiz*, C. **Vogiatzis**, and M. Noor-E-Alam. A column generation algorithm for vehicle scheduling and routing problems. *Computers & Industrial Engineering*, 130:222–236, 2019.

J10. R. Yoshida, K. Fukumizu, and C. **Vogiatzis**. Multilocus phylogenetic analysis with gene tree clustering. *Annals of Operations Research*, 276(1-2):293–313, 2019.

J9. S. Rasti* and C. **Vogiatzis**. A survey of computational methods in protein–protein interaction networks. *Annals of Operations Research*, pages 1–53, 2018.

J8. N. Yasui**, C. **Vogiatzis**, R. Yoshida, and K. Fukumizu. imphy: Imputing phylogenetic trees with missing information using mathematical programming. *IEEE/ACM transactions on computational biology and bioinformatics*, 17(4):1222–1230, 2018.

J7. N. M. A. M. A. Ghani*, C. **Vogiatzis**, and J. Szmerekovsky. Biomass feedstock supply chain network design with biomass conversion incentives. *Energy Policy*, 116:39–49, 2018.

J6. C. **Vogiatzis** and J. L. Walteros. Integer programming models for detecting graph bipartitions with structural requirements. *Networks*, 71(4):432–450, 2018.

J5. C. **Vogiatzis**, A. Veremyev, E. L. Pasiliao, and P. M. Pardalos. An integer programming approach for finding the most and the least central cliques. *Optimization Letters*, 9(4):615–633, 2015.

J4. C. **Vogiatzis**, E. L. Pasiliao, and P. M. Pardalos. Graph partitions for the multidimensional assignment problem. *Computational Optimization and Applications*, 58(1):205–224, 2014.

J3. J. L. Walteros, C. **Vogiatzis**, E. L. Pasiliao, and P. M. Pardalos. Integer programming models for the multidimensional assignment problem with star costs. *European Journal of Operational Research*, 235(3):553–568, 2014.

J2. J. Davis, V. Paramygin, C. **Vogiatzis**, Y. Sheng, P. Pardalos, and R. Figueiredo. Strengthening the resiliency of a coastal transportation system through integrated simulation of storm surge, inundation, and nonrecurrent congestion in northeast florida. *Journal of Marine Science and Engineering*, 2(2):287–305, 2014.

J1. C. **Vogiatzis**, R. Yoshida, I. Aviles-Spadoni, S. Imamoto, and P. M. Pardalos. Livestock evacuation planning for natural and man-made emergencies. *International Journal of Mass Emergencies and Disasters*, 31(1):25–37, 2013.

BOOK CHAPTERS AND CONFERENCE PROCEEDINGS (REFEREED)

C17. X. Ding*, K. Sun*, Z. Xiao*, S. Varadhan*, J. Li*, L. Angrave, N. Gersich*, A. Agarwal*, M. Gopannagari*, A. Tao*, and C. **Vogiatzis**. Evaluating the low-stakes assessment performance: Student-perceived accessibility, belongingness, and self-efficacy in connection to the use of digital notes in engineering and computing courses. In *2023 ASEE Annual Conference & Exposition*, 2023.

C16. S. Varadhan*, X. Ding*, D. L. Zhao*, A. Agarwal*, D. Dalpiaz, C. **Vogiatzis**, Y. Huang, L. Angrave, and H. Liu. Opportunities and barriers to udl-based course designs for inclusive learning in undergraduate engineering and other stem courses. In *2023 ASEE Annual Conference & Exposition*, 2023.

C15. F. Idoko*, C. **Vogiatzis**, and L. Davis. Food bank responsiveness during natural disasters. In *IISE Annual Conference and Expo*. IISE, 2023.

C14. C. **Vogiatzis** and E. Kontou, Critical infrastructure detection in a transportation network with alternative fuel vehicles. In *Handbook for management of threats: Security and defense, resilience and optimal strategies*, 2022 (to appear).

C13. H. Liu, L. Angrave, D. Dalpiaz, C. **Vogiatzis**, Z. Xiao, S. Varadhan, J. Louie, D. Moparthi, and J. Amos. A digital book based pedagogy to improve course content accessibility for students with and without disabilities in engineering or other stemcourses (wip). In *2022 ASEE Annual Conference & Exposition*, 2022.

C12. H. Liu, D. Moparthi, L. Angrave, J. Amos, D. Dalpiaz, C. **Vogiatzis**, S. Varadhan, Y. Huang, and R. Reck. Understanding the needs of students with and without disabilities for inclusive udl-based design of engineering courses through learning management systems. In *2022 ASEE Annual Conference & Exposition*, 2022.

C11. R. Anzoom*, R. Nagi, and C. **Vogiatzis**. A framework to assess risk of illicit trades using Bayesian Belief Networks. *Advances in Production Management Systems Conference*, 2021.

C10. C. Vogiatzis, S. M. Teixeira-Poit, T. N. Walton, G. Gowdy, and B. Ram. Research engineer network: A network analysis of graduate student relationships. In *2021 ASEE Virtual Annual Conference Content Access*, 2021. https://peer.asee.org/37666.

C9. H. Meda*, L. B. Davis, and C. **Vogiatzis**. Analysis of hurricane matthew 2016 data to estimate airline passengers disruption. In *2019 IEEE International Conference on Big Data (Big Data)*, pages 3909–3915. IEEE, 2019.

C8. S. Suehr* and C. **Vogiatzis**. Now you see me: Identifying duplicate network personas. In *2018 European Intelligence and Security Informatics Conference (EISIC)*, pages 23–30. IEEE, 2018. **Best paper award winner for EISIC 2018**.

C7. O. Achrekar and C. **Vogiatzis**. Evacuation trees with contraflow and divergence considerations. In *Dynamics of Disasters Algorithmic Approaches and Applications*, pages 1–46. Springer, Cham, 2018.

C6. C. **Vogiatzis** and P. M. Pardalos. Evacuation modeling and betweenness centrality. In *International Conference on Dynamics of Disasters*, pages 345–359. Springer, Cham, 2016.

C5. C. **Vogiatzis**, J. L. Walteros, and P. M. Pardalos. Evacuation through clustering techniques. In *Models, Algorithms, and Technologies for Network Analysis*, pages 185–198. Springer, New York, NY, 2013.

C4. C. **Vogiatzis** and P. M. Pardalos. Combinatorial optimization in transportation and logistics networks. In *Handbook of Combinatorial Optimization*, pages 673–722. Springer New York, 2013.

C3. J. R. Davis, V. A. Paramygin, R. J. Figueiredo, Y. P. Sheng, C. **Vogiatzis**, and P. M. Pardalos. The coastal science educational virtual appliance (cseva). In *Estuarine and Coastal Modeling (2011)*, pages 359–377. 2013.

C2. J. R. Davis, Q. P. Zheng, V. A. Paramygin, B. Tutak, C. **Vogiatzis**, Y. P. Sheng, P. M. Pardalos, and R. J. Figueiredo. Development of a multimodal transportation educational virtual appliance (mteva) to study congestion during extreme tropical events. Technical report, University of Florida, 2012.

C1. C. **Vogiatzis**. Sensors in transportation and logistics networks. In *Sensors: Theory, Algorithms, and Applications*, pages 145–163. Springer, New York, NY, 2012.

Books/Special Issues Edited

B3. Pardalos, P.M., **Vogiatzis, C.**, and Walteros, J.L., *Selected Papers from the Learning and Intelligent Optimization 8 Conference*, Special Issue at Annals of Mathematics and Artificial Intelligence, Vol. 76, No. 1-2, 2016.

B2. Pardalos, P.M., Resende, M.G.C., **Vogiatzis, C.**, and Walteros J.L., *Learning and Intelligent Optimization: 8th International Conference, Lion 8, Gainesville, FL, USA, February 16-21, 2014 Revised Selected Papers*, Lecture Notes in Computer Science Vol. 8426, Springer, 2014.

B1. **Vogiatzis, C.**, Walteros, J.L., and Pardalos, P.M., *Dynamics of Information Systems: Computational and Mathematical Challenges*, Springer Proceedings in Mathematics & Statistics Vol. 105, Springer, 2014.

Articles in Preparation/Submitted

W7. T. Faiz*, C. **Vogiatzis**, and N. Alam. A Robust Optimization Framework for Two-Echelon Vehicle and UAV Routing for Post-Disaster Humanitarian Logistics Operations, under 3rd round of reviews, August 2023.

W6. T. Faiz*, C. **Vogiatzis**, and N. Alam. Computational Approaches for Solving Two-Echelon Vehicle and UAV Routing Problems for Post-Disaster Humanitarian Operations, under 2nd round of reviews, July 2023.

W5. A. Michels*, C. **Vogiatzis**, S. Wang, Exploring Road Infrastructure Inequity in the Conterminuous United States with a Scalable Geospatial Computing Framework, submitted, June 2023.

W4. C. **Vogiatzis** and E. Kontou, Racial bias in automated traffic law enforcement and the price of unjustness, submitted, May 2023.

W3. T. Yang, J. Liu, T. Faiz, C. **Vogiatzis**, N. Alam, Computational Framework for Target Tracking Information Fusion Problems, submitted, January 2023.

W2. H. Meda*, C. **Vogiatzis**, L. Davis, Multimodal Approach for Rescheduling Airline Passengers, submitted, November 2022.

W1. G. Ameen, S. Solanki, T. Drader, L. Sager-Bittara, B. Steffenson, A. Kleinhofs, C. **Vogiatzis**, and R. S. Brueggeman. rcs5-mediated spot blotch resistance in barley is conferred by wall-associated kinases that resist pathogen manipulation. *bioRxiv*, 2020

Open-source Software

S3. Mustafa Can Camur, Thomas Sharkey, and **Chrysafis Vogiatzis** (2021). The source code for "The Star Degree Centrality: A Decomposition Approach" study.

Download from: https://github.com/mcamur/SDC

S2. Gazala Ameen, **Chrysafis Vogiatzis**, Shyam Solanki, & Robert Brueggeman, (2018). Gazala-Ameen/PPIN: Dependencies and run requirements of PPIN (Version PPIN.01). Zenodo.

https://doi.org/10.5281/zenodo.1943607

Download from: https://github.com/Gazala-Ameen/PPIN

S1. Niko Yasui, **Chrysafis Vogiatzis**, Ruriko Yoshida, & Kenji Fukumizu, (2018). imPhy.

Download from: https://github.com/yasuiniko/imPhy/

Sponsored Activities

- **Submitted for $501,455**, National Science Foundation, Collaborative Research: D-ISN: Mitigating the Harm of Fentanyl through Holistic Demand/Supply-Chain Interventions and Equitable Resource Allocations (submitted, dates if awarded: 2023–2027).

- **Awarded for $30,000** (co-Investigator), Center on Health, Aging, and Disability, *Geospatial Variability of Illicit Opioid Use and Disparities in Treatment Resources* (dates: 08/2022–07/2023).

- **Awarded for $74,892** (co-Investigator), Jump ARCHES, *Healing Healthcare Disparities among BIPOC Patients through Virtual Reality Cultural Competency Training* (dates: 01/2022–01/2023).

- **Awarded for $21,000** (co-PI), Grainger College of Engineering, University of Illinois Urbana-Champaign Strategic Instructional Innovations Program, *UDL Based Best Practices Including Utilizing Canvas for the Needs of Students with Disability* (dates: 2021–2022).

- **Awarded for $9,905** (co-PI), Institute for Inclusion, Diversity, Equity, and Access, GIANT: *Applying a theoretical understanding of text-based learning modalities to develop new course modalities that meet the needs of student with disabilities* (dates: 2021–2023).

- **Awarded for $31,298** (co-PI, in total **$461,226**) NSF, *Innovations in Graduate Education: Developing a Research Engineer Identity* (dates: 04/2019–03/2023).

- **Awarded for $97,000** (PI, **$212,000** in total) Army Research Lab, *Contextualizing knowledge and perception in dynamic environments using interdependent network analysis* (dates: 10/2020–09/2022).

- **Awarded for $56,034.72** (in total, subaward) Department of Homeland Security (DHS), *Center of Excellence for Accelerating Operational Efficiency (CAOE)* (05/2018–07/2018): Funded two undergraduate students, Ameenah Al-Raheem and Aria Koehler and studied two network optimization problems with applications in social network analysis.

- **Awarded for $5,040** (in total, PI) by Swanson Health Products (local industry), *Process Improvement based on Lean Principles* (01/2016–05/2016): Funded an undergraduate student, Ms. Hannah Schnepf, and studied improvements for the

process of launching new products. Decreased the time from receipt to launch by an average of 4 weeks.

HONOURS AND AWARDS

At University of Illinois Urbana-Champaign:

- **2023 INFORMS Case Competition Finalist**.
- **2023 ASEE Illinois/Indiana Section Outstanding Teacher of the Year Award**. Automatically nominated for the 2024 ASEE National Outstanding Teacher of the Year Award.
- **IISE Outstanding Faculty Advisor** Award (U.S. North Central Region, 2020 and 2023).
- **Best Diversity Equity and Inclusion Paper 2022** at the 2022 ASEE Annual Conference, New Engineering Educators Division, for "A digital book-based pedagogy to improve course content accessibility for students with and without disabilities in engineering or other STEM courses".
- **2022 INFORMS Poster Competition Finalist×2** (with Faith Idoko, Lauren Davis and with Denissa Purba, Eleftheria Kontou).
- **James Franklin Sharp Outstanding Teaching Award in Industrial Engineering 2020**.
  Link: https://ise.illinois.edu/graduate/awards/sharp-teaching-award
- **List of teachers ranked as excellent by their students** (Spring 2023*, Fall 2022*, Spring 2022*, Fall 2021, Spring 2021*, Fall 2020*, Spring 2020, Fall 2019*).
  * Further **ranked as outstanding**.
- **First place at INFORMS 2020 OR/MS Tomorrow mini-poster competition**, Denissa Purba, Eleftheria Kontou, and Chrysafis Vogiatzis "Evacuation planning for alternative fuel vehicles".
  Link here.

At North Carolina A&T State University:

- **Graduate Teacher of the Year 2019** for teaching graduate classes in Industrial & Systems Engineering.
- **Undegraduate Teacher of the Year 2019** for teaching undergraduate classes in Industrial & Systems Engineering.
- **Trusted CI Open Science Cybersecurity Fellowship 2019-2020** (member of the inaugural cohort of fellows).
- **Best Paper Award 2018** with Sean Suehr (M.S. 2019) for Now You See Me: Identifying Duplicate Network Personas in EISIC 2018.

At University of Florida:

- **University of Florida Graduate Student Teaching Award Winner 2012**.
- **Teaching Excellence Award (2012)** for teaching in the Department of Industrial and Systems Engineering.
- **Graduate Student Teaching Award 2010-2011** by the Department of Industrial and Systems Engineering.

- **Gerondelis Foundation Scholarship** of 5,000$ for excellence in studies (2011).
- **Integrity and Work Ethic** Gator Attribute nomination by the Department of Industrial and Systems Engineering (2012, 2013, and 2014).
- **INFORMS 2013 Future Academician Colloquium**, nominated by the Department of Industrial and Systems Engineering.
- **Faculty mentor** of University of Florida International Center Outstanding International Student Award Recipient, Ms. Areej Al-Bahar (2015).

Other:
- **Awards in the Hellenic Mathematical Society Competition** for all prefectures except for Attiki and Thessaloniki in 1998 (1st), 1999 (1st), and 2000 (3rd).

MEDIA AND WEBSITES

- "**Promoting Diversity, Equity, and Inclusion in the Online Classroom**" Link here.
- "**SARS-CoV-2 Dissemination Using United States County Adjacencies**" Link: https://chvogiat.shinyapps.io/dod2021/
- "**If I could do it in prison, you could do it out there in the world: College-in-prison program works to close the education gap**" Link here.

TEACHING EXPERIENCE

I only include the last five years of teaching evaluations. I have taught courses on *Production and Inventory Control, Quantitative Modeling, Probabilistic & Deterministic Methods* (North Dakota State University, NDSU), *Stochastic Operations Research, Queuing Theory, Information Technology, Integer & Network Optimization* (North Carolina A&T State University, NCAT), and *Analysis of Data, Analysis of Network Data, Simulation* (University of Illinois Urbana-Champaign, UIUC). A full teaching history, along with all semester evaluations since 2010, is available upon request.

TEACHING EVALUATIONS

Spring 2023 (UIUC)
1. Analysis of Data (IE 300)
   Evaluations: **4.89/5.00**
2. Simulation Modeling for IE (IE 371)
   Evaluations: **4.91/5.00**

Spring 2022 (UIUC)
1. Analysis of Data (IE 300)
   Evaluations: **5.00/5.00**
2. Simulation (IE 398)
   Evaluations: **4.85/5.00**

Fall 2022 (UIUC)
1. Analysis of Data (IE 300)
   Evaluations: **4.92/5.00**
2. Analysis of Network Data (IE 532)
   Evaluations: **4.77/5.00**

Fall 2021 (UIUC)
1. Analysis of Data (IE 300)
   Evaluations: **4.74/5.00**
2. Analysis of Network Data (IE 532)
   Evaluations: **4.82/5.00**

Spring 2021 (UIUC)
1. Analysis of Data (IE 300)
   Evaluations: **4.81/5.00**

2. Simulation (IE 398)
   Evaluations: **4.85/5.00**

Spring 2020 (UIUC)
1. Simulation (IE 398)
   Evaluations: **4.72/5.00**

Spring 2019 (NCAT)
1. Integer & Network Optimization
   Evaluations: **4.80/5.00**

2. Stochastic Operations Research
   Evaluations: **4.75/5.00**

Fall 2020 (UIUC)
1. Analysis of Data (IE 300)
   Evaluations: **4.74/5.00**

2. Analysis of Network Data (IE 532)
   Evaluations: **5.00/5.00**

Fall 2019 (UIUC)
1. Analysis of Data (IE 300)
   Evaluations: **4.70/5.00**

2. Analysis of Network Data (IE 532)
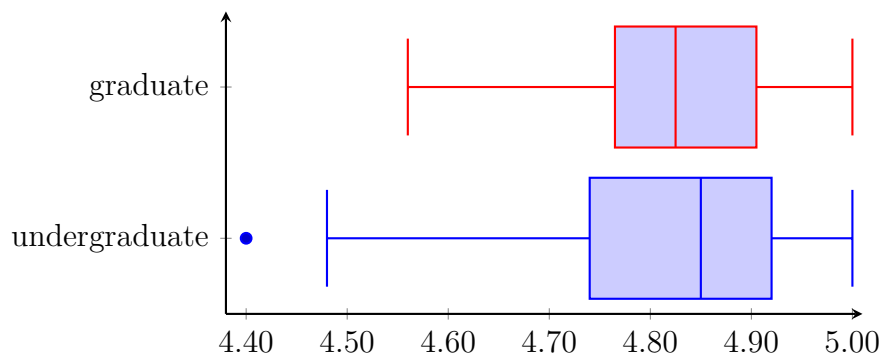   Evaluations: **4.90/5.00**

Fall 2018 (NCAT)
1. Queuing Theory
   Evaluations: **4.76/5.00**

2. Information Technology
   Evaluations: **4.84/5.00**

Evaluations over last 5 years (graduate mean=**4.84**/5.00, undergraduate mean=**4.83**/5.00)
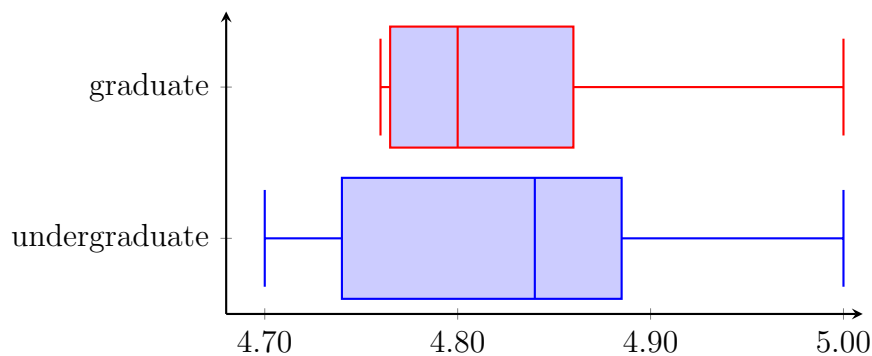
Evaluations over career (graduate mean=**4.83**/5.00, undergraduate mean=**4.82**/5.00)

STUDENTS
ADVISED

MS students:

UIUC: **Vishnu Pratheek Challa**, May 2021, current position: Data Analyst in DataSeers.

NCAT: **Sean Suehr**, December 2019, "Now You See Me: Identifying duplicate network personas", current position: Operations Research Scientist at the Crane Naval Base.

Mohamed ElAmin, August 2019, current position: Project Manager at Deutsche Process.

NDSU: **Md. Mahbubar Rahman**, August 2017, "Two-echelon vehicle routing problems using UAVs", current position: Ph.D. student at North Dakota State University.

Rahul Banothu, December 2017, "Vulnerability assessment of interdependent power and communications networks under varying level of interdependency".

Omkar Achrekar, May 2018, "Evacuation trees with contraflow and divergence considerations".

External: **Kenneth Marler** (external committee member, Naval Postgraduate School), August 2022.

Stephen Cone (co-advisor, Naval Postgraduate School), August 2022.

Patrick Urrutia (co-advisor, Naval Postgraduate School), December 2021.

David Wren (co-advisor, Naval Postgraduate School), May 2021.

Yixuan Liu (external committee member, Naval Postgraduate School), May 2021.

<u>PhD students:</u>

UIUC: **Rashid Anzoom**, 2020–present.

NCAT: **Faith Idoko**, 2021–present.

Harshitha Meda, "A theoretical approach and optimization model integrating network theory to analyze and mitigate airport network disruption", August 2021, current position: Senior Analyst in Data Analytics, Liberty Mutual.

NDSU: **Saeid Rasti**, "Two applications of combinatorial branch-and-bound in complex networks and transportation", December 2020, current position: Operations Research Architect at FedEx.

N Muhammad Aslaam Mohamed Abdul Ghani, "Essays on biomass supply chain network design", May 2018, current position: Lecturer at the Universiti Malaysia Terengganu, Malaysia.

External: **Mustafa Can Camur** (co-chair, Clemson University), "Large-scale optimization models with applications in biological and emergency response networks", August 2021, current position: Research Engineer, Enterprise Operations Research at General Electric Research.

CONFERENCE
SERVICE

- Dynamics of Disasters 2021 and 2023, Program Chair.
- 2nd Meeting of the Mathematical Modeling and Optimization Institute, 2014, Organizer.
- LION 8 (Learning and Intelligent OptimizatioN), 2014, Local organizing committee.

- 1st Annual Meeting of the Mathematical Modeling and Optimization Institute, 2013, Local organizing committee.
- 5th International Conference on the Dynamics of Information Systems, 2013, Organizer.
- 3rd Conference on Optimization Methods and Software, 2012, Local organizing committee.
- 1st International Conference on Network Analysis, 2011, Organizer.
- The 2nd World Congress on Global Optimization, 2010, Local organizing committee.

SCIENTIFIC AND PROFESSIONAL SOCIETIES

- **INFORMS**: Institute for Operations Research and the Management Sciences
- **IISE**: Institute of Industrial and Systems Engineers
- **ASEE**: American Society for Engineering Education

TEACHING AND PEDAGOGY SEMINARS

- "**Team activities and low-stakes assessment tools using Canvas and gradescope**" in the AE3 Lightning Symposium "Supporting learning and growth in the post-COVID-19 classroom" (November 10, 2022).
- "**Statistical modeling literacy in the IE curriculum**" in the AE3 Lightning Symposium "Computing Across the Curriculum" (February 24, 2022).
- "**Utilizing Canvas to help teach a course with universal design of learning − a few practical strategies**" at TPro2 seminar (January 14, 2022).
- "**Building community in the college classroom**" in the AE3 Summer 2021 Faculty Development Workshop (July 27, 2021).
- "**Diverse delivery modes for flipped classrooms**" in the AE3 Lightning Symposium "One Way the Pandemic Improved my Teaching" (March 30, 2021).
- "**Flipped instruction**" practices in the AE3 Lightning Symposium "Instruction in the Era of COVID-19" (October 15, 2020).

SERVICE ACTIVITIES

- Vice Chair (2022–) and member (2020–) of the **Diversity, Equity, and Inclusion committee** of INFORMS (2020–). Chair of the Fundraising subcommittee (2020–2022), member of the DEI Ambassadors Program subcommittee (2020–2022), and member of the Teaching Pathways subcommittee (2022–).
- Director of Professional and Online Education (2022–), Industrial and Enterprise Systems Engineering.
- Chair of the Industrial and Enterprise Systems Engineering **Task Force for pedagogical practices in the online space** (2020–2021).
- NSF reviewer panel (2022, 2023).
- Department of Homeland Security (DHS) reviewer panel (2023).
- Media coordinator for the INFORMS **Junior Faculty Interest Group** (JFIG) (2017–2019).

- Chair and member of the NDSU **College of Engineering Research & Graduate Committee**, responsible for awarding two faculty and one student research awards every year, and promoting high-quality, high-impact research (Chair: 2016–2017, Member: 2015–2017).

- Member of the Steering Committee of the NDSU College of **NAE Engineering Grand Challenges Scholars Program** (2016–2017).

- **Graduate Program Coordinator** for Industrial & Manufacturing Engineering at North Dakota State University (2016–2017).

- **Faculty Adviser for the Institute of Industrial and Systems Engineers student chapters** at North Dakota State University (2015–2017) and the University of Illinois Urbana-Champaign (2019–present). Awarded the outstanding faculty advisor for the North Central Region in 2020.

- I have served as a reviewer for a wide variety of scientific journals in my area of interest, including (in the last year): Networks, IISE Transactions, Transportation Science, European Journal of Operational Research, OMEGA, Socio-Economic Planning Sciences, among others.

- Reviewer for *Mathematical Reviews*.

COMMUNITY
OUTREACH

- **Graduate Research Identity Development (GRID) program**. I created a new seminar class for how to network for engineering graduate students. The class has been offered since Fall 2019 (both synchronously and asynchronously).

- **Educational Justice Project: Workshop in Statistical Modeling with R**. I offered a series of STEM workshops in the Danville Correctional Center through the Educational Justice Project during Fall 2021.

LANGUAGES   English (fluent), Italian (fluent), French (fluent), Spanish (conversant), Greek (native speaker).