Caleb James Armstrong, Ph.D.

(Also published as Mustafa Demir)

Associate Research Scientist
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Research Fellow
Wm Michael Barnes '64 Dept. of Industrial & Systems Engineering,
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Cyberinfrastructure Facilitator
Cross-Institutional Research Engagement Network (CIREN),
ASU & University of Tennessee, Knoxville

Professional Summary

As a multi-institution and multidisciplinary scholar, I have over a decade of experience advancing healthcare technology and innovation through the human-centered design and evaluation of medical devices, digital health systems, and sensor-based monitoring platforms. Expertise includes Human-Centered Data Science, Human-Centered AI, Human–Machine Teaming, Human–Computer Interaction, Generative AI, team cognition, machine learning, advanced statistical modeling, and nonlinear dynamical systems methods. My work develops adaptive, data-driven solutions that enhance decision-making, communication, coordination, and resilience across healthcare, defense, transportation, education, biodesign, and the life sciences, including applications in complex systems modeling and Interactive Molecular Dynamics (IMD).

Research Fellow at Texas A&M University: Advancing healthcare technology and innovation through Human-Centered Data & AI Sciences, developing digital health and AI-enabled interventions such as *mHELP* (real-time stress detection and reduction), *FirstWatch* (PTSD hyperarousal monitoring for veterans), and *GlucoseCoach* (AI-powered diabetes self-management).

Associate Research Scientist at Arizona State University (ASU): Leading the AI Tutor Teammate, an AI-driven curiosity-regulation system for IMD-based learning, and facilitating the NSF-funded Cross-Institutional Research Engagement Network (CIREN) to advance multidisciplinary collaboration in high-performance computing and AI, including collaborative work with the *ASU School of Mathematical and Natural Sciences* on high-performance modeling of biological complex systems using agent-based modeling (ABM), generalized additive models (GAM), and integrated nested Laplace approximation (INLA).

Professional Memberships: Senior Member, IEEE; Member, Human Factors and Ergonomics Society (HFES); Member, Association for Computing Machinery (ACM). *Publications & Impact:* 90+ peer-reviewed publications; h-index of 30.

Core Competencies

- Grant Writing and Project Management (NIH, AHA, DoD, ONR, AFOSR, NSF)
- Healthcare Technology & Innovation (digital health, mHealth, sensor-integrated systems, AI-enabled interventions)
- Institutional Review Board Compliance and Human Subjects Research Protocols
- Applied Statistics Instruction and Curriculum Design (R, SPSS, SAS)

- Mixed-Methods Research & Advanced Statistics (LMM, GLMM, Multilevel Models)
- Dynamical Systems Modeling (Stability, Fractal and Recurrence Quantification Analyses)
- Machine Learning for Behavioral Prediction (Clustering, LASSO, Random Forests)
- Physiological and Behavioral Signal Analysis (HRV/ECG, pupilometry, accelerometry, fixation data) and nonlinear dynamical approaches to stress and attention modeling
- Temporal and Communication Behavior Analysis in Human-AI Teams
- Scholarly Dissemination (90+ peer-reviewed publications; h-index: 30)
- Stakeholder Engagement and Community-Based Research
- Mentorship of Undergraduate, Graduate, and Research Personnel

EDUCATION

- **Doctorate of Philosophy in Simulation, Modelling, and Applied Cognitive Science (Human Systems Engineering)**
  Arizona State University (ASU), Mesa, Arizona, 2013–2017
- **Master of Science in Management of Technology**
  ASU - Mesa, Arizona, 2010 - 2013
- **Master of Administration in Economics**
  Erciyes University - Kayseri, Turkey, 2007 - 2009
- **Bachelor of Science in Mechanical Engineering**
  Dumlupinar University - Kutahya, Turkey, 2000 - 2004

PROFESSIONAL DEVELOPMENT

- **DATA in Desert Workshop, ASU (January 2020)**: Introduction to Bayesian statistical modeling as a theoretical and practical workshop. Software: R software package
- **APA Training (May 2019)**: Advanced Training Institute on Nonlinear Structural Equation Modeling in Longitudinal Data. Software: R software
- **APA Training (June 2016, 2018)**: Nonlinear Methods for Psychological Science. Software: Matlab
- **Clemson University and Georgia Tech University (July 2018)**: Training on deep-dive data analysis and modeling on systems-level dynamic behaviors of Human-Autonomy Teams
- **Six Sigma Training (March 2013)**: Six Sigma Green Belt certificate, Arizona State University. Software: Minitab

PROFESSIONAL APPOINTMENT

- **Associate Research Scientist**, Biodesign Institute, Center for Applied Structural Discovery, 2024 - Present
- **Faculty Associate**, Ira A. Fulton Schools of Engineering, ASU, Tempe, Arizona, 2012 - Present (Teaching Statistics)

- **Research Fellow**, Wm Michael Barnes '64 Department of Industrial and Systems Engineering, Texas A&M University, College Station, Texas, 2024 - Present
- **Assistant Research Professor**, Global Security Initiative, ASU, 2022 - 2024
- **Assistant Research Scientist**, Global Security Initiative, ASU, 2021 - 2022
- **Postdoctoral Research Scholar**, Ira A. Fulton Schools of Engineering, ASU, 2017 - 2021

RESEARCH GRANTS

- **DOD-USAF-AFRL: Air Force Office of Scientific Research (AFOSR)**
  Project: Harnessing discovery curiosity with zero-cost online visualization laboratories
  Amount: $130,099 (White Paper Accepted), (Full proposal Accepted)
  Role: Co-PI
- **Office of Naval Research (ONR)**
  Project: The Impact of Intelligent Autonomous Systems (IAS) Integration on Human-IAS Teams
  Amount: $70,000 (White Paper Accepted), (Full proposal Accepted)
  Role: Co-PI
- **ONR Department of Navy STEM Education and Workforce Program**
  Project: Student-AI Team Coordination Dynamics for Future Naval Workforce
  Amount: $525,602 (White Paper Rejected)
  Role: PI
- **ONR Science of Autonomy Program**
  Project: Team Agility in Multi-Level Cross-Domain Human-Autonomy Team Systems
  Amount: $6,231,155 (Full Proposal Rejected)
  Role: PI

AWARDS, FELLOWSHIPS, & SCHOLARSHIPS

- **Best Paper Award** - Advancing Systems and Practice through Innovation, Research and Education for Human Factors and Ergonomics Annual Meeting, October 2025,
- **Dissertation Fellowship Award** - ASU, 2016-2017 ($17,000)
- **Best Paper Award** - IEEE CogSIMA International Conference, March 2016 ($500)
- **2016 Student Author Presentation Support Award** - The Human Factors and Ergonomics Society (HFES) Council of Technical Groups (COTG) for the 2016 Human Factors and Ergonomics Society Annual Meeting, September 19-23, Washington, DC. ($599)
- **2016 Travel Grant** - IEEE CogSIMA 2016 for the 2016 IEEE International Inter-Disciplinary Conference on IEEE, March 21-26, San Diego, CA.($500)
- **2016 Travel Grant** - ASU Graduate and Professional Student Association for the 2016 IEEE International Inter-Disciplinary Conference on IEEE, March 21-26, San Diego, CA.($950)
- **2015 Travel Grant** - The MITRE for the 12th International Conference on Naturalistic Decision Making 2015, June 9-12, McLean, VA. ($1,000)
- **2014 Travel Grant** ASU Graduate and Professional Student Association for the 2014 HFES Annual Meeting, Oct 25-31, Chicago, IL. ($950)

- **Leadership Awards** - ASU Graduate and Professional Student Association, 2014-2017 ($12,500 total)

PUBLICATIONS [Google Scholar - ResearchGate]

Note: ***All of my publications, including current and forthcoming works, are attributed to Mustafa Demir to ensure consistency across academic records and professional presentations.***

Manuscripts Under Review

- **Ta, A., Salgin, N., Demir, M., Randal, K.P., Mehta, R.K., McDonald, A., McCord, C., & Sasangohar F.** (Under Review). *Real-Time Stress Monitoring, Detection, and Management in College Students: A Wearable Technology and Machine-Learning Approach.* IISE Transactions on Healthcare Systems Engineering.

- **Cai, Y., Demir, M., Sasangohar, F. / Zare, M** (Under Review). *The Dynamics of Attention across Automated and Manual Driving Modes: A Driving Simulation Study.* Human Factors.

- **Jei, H., Demir, M., & Sasangohar, F.** (Under Review). *Eyes on the Mission in a Multi-Team Systems: Mixed Methods Assessment of Eye-Tracker-Enabled Interactive Decision Support in a Simulated Unmanned Aerial Vehicle System.* Applied Ergonomics.

Peer-Reviewed Journal Articles

- **Demir, M., Miratsky, J., Mishra, P., Nguyen, J., Chan, C., & Singharoy, A.** (2025). Exploring Artificial Intelligence Tutor Teammate Adaptability to Harness Discovery Curiosity and Promote Learning in the Context of Interactive Molecular Dynamics. Cognitive Computation. 17, 143. DOI: 10.1007/s12559-025-10498-y.

- **Humr, S., Canan, M., & Demir, M.** (2025). A Quantum Probability Approach to Improving Human–AI Decision Making. *Entropy, 27*(2), 152. DOI: 10.3390/e27020152.

- **Chan, C.K., Rajarigam, C., Jiang, P., Miratsky, P., Demir, M., Sener, M., Singharoy, A.** (2025). *A to-do list for realizing the sequence-to-function paradigm of proteins.* Current Opinion in Structural Biology, 93:103119. doi: 10.1016/j.sbi.2025.103119. Epub 2025 Jul 17. PMID: 40680328.

- **Nguyen, T., Magaldino, C., Landfair, J., Amazeen, P. G., Demir, M., Huang, L., & Cooke, N.** (2025). Navigating the Complex Dynamics of Human-Automation Driving: A Guide to the Use of the Dynamical Systems Analysis (DSA) Toolbox. Cognitive Systems Research, 91 (101347)DOI: 10.1016/j.cogsys.2025.101347.

- **Rodriguez, L., Bustamante Orellana, C., Cooke, N., Demir, M., & Kang, Y.** (2024). Communication dynamics of a two-agent interaction model with applications to human-autonomy teaming. *Journal of Difference Equations and Applications*, 30(8), 1222–1252. DOI:10.1080/10236198.2024.2343834.

- **Harrison, J.L., Zhou, S., Scalia, M.J., Grimm, D.A.P., Demir, M., McNeese, N.J., Cooke, N.J., & Gorman, J.C.** (2024). Communication Strategies in Human-Autonomy Teams During Technological Failures. *Human Factors*, 0(0). DOI: 10.1177/00187208231222119.

- **Grimm, D. A. P., Gorman, J. C., Cooke, N. J., Demir, M., & McNeese, N. J.** (2023). Dynamical Measurement of Team Resilience. *Journal of Cognitive Engineering and Decision Making*, 17(4), 351–382. DOI: 10.1177/15553434231199729.

- **Demir, M., Canan, M., & *Cohen, M.** Modeling Team Interaction and Decision Making in Agile Human-Machine Teams: Quantum and Dynamical Systems Perspectives. *IEEE Transactions on Human-Machine Systems*. DOI:10.1109/THMS.2023.3276744.

- **Humr, S., Canan, A., & Demir, M.** (2023). Expansion of Situations Theory for Exploring Shared Awareness in Human-Intelligent Autonomous Systems. *International Journal of System of Systems Engineering*, 15(4), 10058953. DOI: 10.1504/IJSSE.2025.10058953.

- **Demir, M., Cohen, M., Johnson, C. J., Chiou, E. K., & Cooke, N.J.** (2022). Exploration of the Relationship between Interpersonal Coordination Dynamics and Team Effectiveness in Human-Machine Teams. *International Journal of Human-Computer Interaction*. DOI: 10.1080/10447318.2022.2143004.

- **Tenhundfeld, N., Demir, M., & de Visser, E.** (2022). Assessment of Trust in Automation in the "Real World": Requirements for New Trust in Automation Measurement Techniques for Use by Practitioners. *Journal of Cognitive Engineering and Decision Making*. DOI: 10.1177/15553434221096261.

- **Ezelyilimba, A., Wong, M., Hehr, A., Demir, M., Wolff, A., Chiou, E. K., & Cooke, N.J.** (2022). The Impact of Transparency and Explanations on Trust and Situation Awareness in Human-Robot Teams. *Journal of Cognitive Engineering & Decision Making*. DOI: 10.1177/155534342211363.

- **Demir, M., McNeese, N. J., Cooke, N. J., Gorman, J., Myers, C., & Grimm, D.** (2021). Exploration of Teammate Trust and Interaction Dynamics in Human-Autonomy Teaming. *IEEE Transactions on Human-Machine Systems*. DOI: 10.1109/THMS.2021.3115058.

- **Chiou, E., Demir, M., Buchanan, V., Corral, C., Cooke, N.J., Lematta, G., Endsley, M., & McNeese, N.J.** (2021). Explanation-based Communication Strategies in a Simulated Human-Robot Search and Rescue Team Task. *International Journal of Social Robotics*. DOI: 10.1007/s12369-021-00834-1.

- **Johnson, C., Demir, M., Wolff, A., Gorman, J., McNeese, N.J., & Cooke, N.J.** (2021). The Influence of Training on Human–Autonomy Team Communications and Trust Calibration. *Human Factors*. DOI: 10.1177/00187208211047323.

- **McNeese, N.J., Schelble, B., Canonico, L., & Demir, M.** (2021). Team Characteristics and Dynamics in Human-Human, Human-Machine, and Machine-Machine Teaming. *IEEE Transactions on Human-Machine Systems*. DOI: 10.1109/THMS.2021.3086018.

- **McNeese, N.J., Demir, M., She, M., & Cooke, N.J.** Team Situation Awareness and Conflict: A Study of Human-Autonomy Teaming. *Journal of Cognitive Engineering and Decision Making*. DOI: 10.1177/15553434211017354.

- **McNeese, N. J., Demir, M., Chiou, E. K., & Cooke, N. J.** (2021). Trust and Team Performance in Human–Autonomy Teaming. *International Journal of Electronic*, 25(1), 51–72. DOI: 10.1080/10864415.2021.1846854.

- **Demir, M., McNeese, N. J., & Cooke, N. J.** (2020). Understanding Human-Robot Teams in Light of All-Human Teams: Aspects of Team Interaction and Shared Cognition. *International Journal of Human-Computer Studies*, 140. DOI: 10.1016/j.ijhcs.2020.102436.

- **Demir, M., McNeese, N. J., & Cooke, N. J.** (2019). The Evolution of Human-Autonomy Teams in Remotely Piloted Aircraft Systems Operations. *Frontiers in Communication*, 4. DOI: 10.3389/fcomm.2019.00050.

- **Demir, M., Likens, A. D., Cooke, N. J., Amazeen, P. G., & McNeese, N. J.** (2019). Team Coordination and Effectiveness in Human-Autonomy Teaming. *IEEE Transactions on Human-Machine Systems*, 49(2), 150-159. DOI: 10.1109/THMS.2018.2877482.

- **Gorman, J. C., Demir, M., Cooke, N. J., & Grimm, D.** (2019). Evaluating Sociotechnical Dynamics in a Simulated Remotely-Piloted Aircraft System: A Layered Dynamics Approach. *Ergonomics*, 1–44. DOI: 10.1080/00140139.2018.1557750.

- **Myers, C. W., Ball, J. T., Cooke, N. J., Freiman, M. D., Caisse, M., Rodgers, S. M., Demir, M., & McNeese, N. J.** (2019). Autonomous Intelligent Agents for Team Training Making the Case for Synthetic Teammates. *IEEE Intelligent Systems*, 34(2), 3-14. DOI: 10.1109/MIS.2018.2886670.

- **Demir, M., Cooke, N. J., & Amazeen, P. G.** (2018). A conceptual model of team dynamical behaviors and performance in human-autonomy teaming. *Cognitive Systems Research*, 52, 497–507. DOI: 10.1016/j.cogsys.2018.07.029.

- **Demir, M., McNeese, N. J., & Cooke, N. J.** (2018). The Impact of a Perceived Autonomous Agent on Dynamic Team Behaviors. *IEEE Transactions on Emerging Topics in Computational Intelligence*, 2(4). DOI: 10.1109/TETCI.2018.2829985.

- **McNeese, N. J., Demir, M., Cooke, N. J., & Myers, C.** (2018). Teaming With a Synthetic Teammate: Insights into Human-Autonomy Teaming. *Human Factors*, 60(2), 262–273. DOI: 10.1177/0018720817743223.

- **Demir, M., McNeese, N. J., & Cooke, N. J.** (2017). Team situation awareness within the context of human-autonomy teaming. *Cognitive Systems Research*, 46, 3–12. DOI: 10.1016/j.cogsys.2016.11.003.

- **Waissi, G. R., Demir, M., Humble, J. E., & Lev, B.** (2015). Automation of strategy using IDEF0—A proof of concept. *Operations Research Perspectives*, 2, 106–113. DOI: 10.1016/j.orp.2015.05.001.

- **Uzay, N., Demir, M., & Yildirim, E.** (2012). The Importance of Technological Innovation from the Perspective of Export Performance: The Case of Turkish Manufacturing Industry. *Journal of Dogus Uni.*, 13(1), 147–160.

Conference Proceedings

- **Demir, M., Miratsky, J., Mishra, P., Nguyen, J., Chan, C.K., Singharoy, A.** (2025). Exploring Artificial Intelligence Tutor Adaptability to Harness Discovery Curiosity and Promote Learning in Applied Mathematics and Life Sciences. Proceedings of the Human Factors and Ergonomics Society (HFES) Annual Meeting. (HFES-ASPIRE), Chicago, IL.

- **Cai, Y., Demir, M., Sasangohar, F., Zare, M.** (2025). Investigating Shifts in Driver Attention and Trust Across Manual and Autonomous Driving: Insights from Eye-Tracking Metrics.Proceedings of the HFES Annual Meeting. (HFES-ASPIRE), Chicago, IL. DOI: 10.1177/1071181325137165. ***HFES BEST PAPER AWARD (2025)***.

- **Ta, A., Salgin, N., Demir, M., Sasangohar F.** (2025). Real-Time Stress Monitoring, Detection, and Management in College Students: A Wearable Technology and Machine-Learning Approach. (HFES-ASPIRE), Chicago, IL. [Will be presented].

- **Jei, H. G., Demir, M., & Sasangohar, F.** (2025).Uncovering Patterns in Visual Attention: Clustering and Feature Selection for Predicting Military Mission Commander Performance. (HFES-ASPIRE), Chicago, IL.
- **Carrillo Leal, J. H., Demir, M., Markert, C., Zahed, K., Sasangohar, F.**(2025).Improving Hypertension Self-Management through Mobile Health Digital Coaching. (HFES-ASPIRE), Chicago, IL.
- **Jei, H. G., Demir, M., & Sasangohar, F.** (2024). Eyes on the Mission: Eye-Tracker-Enabled Real-Time Decision Support System in a Simulated Remotely Piloted Aircraft Task Environment. *Human Factors and Ergonomics Society Annual Conference (HFES-ASPIRE)*, Arizona, USA. [Presented].
- **Jei, H. G., Demir, M., & Sasangohar, F.** (2024). Eyes on the Mission in Multi-Team Systems: Eye-Tracker-Enabled Interactive Decision Support System in the Context of Simulated Remotely Piloted Aircraft Systems. *International Ergonomics Association*, Jeju, Korea. [Presented].
- **Demir, M., Leahy, S. M., Mishra, P., Chen, C. K., & Singharoy, A.** (2023). Adaptive Artificial Intelligence to Teach Interactive Molecular Dynamics in the Context of Human-Computer Interaction. *2023.08.26.554965*. DOI: 10.1101/2023.08.26.554965.
- **Willett, M. M., & Demir, M.** (2023). Understanding the Impact of Team Cognitive Load and Advice Compliance in Urban Search and Rescue Task. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 0(0). DOI: 10.1177/21695067231192293.
- **Humr, S. A., Canan, M., & Demir, M.** (2023b, October). A Quantum Decision Approach for Human-AI Decision-Making. *Cognitive and Computational Aspects of Situation Management (CogSIMA)*, Philadelphia.
- **Atchley, A., O'Hear, E., Barr, H. M., Cotter, J. E., Hamblin, B., Oswald, G., Mesmer, B., Weger, K., Gholston, S., Menon, V., Demir, M., & Tenhundfeld, N. L.** (2023). How do Blame Attributions Impact Trust in Complex Task Environments? *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. DOI: 10.1177/21695067231192618.
- **Humr, S. A., Canan, M., & Demir, M.** (2023). Temporal Evolution of Trust in Artificial Intelligence-Supported Decision-Making. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. DOI: 10.1177/21695067231193672.
- **Humr, S., Canan, A., & Demir, M.** (2023). Expansion of Situations Theory for Exploring Shared Awareness in Human-Intelligent Autonomous Systems. *International Journal of System of Systems Engineering*, 15(4), 10058953. DOI: 10.1504/IJSSE.2025.10058953.
- **Leahy, S., Demir, M., & Singharoy, A.** (2023, July 10). Ice to Water: Exploring Biotechnology through Virtual Reality. *Proceedings of EdMedia + Innovative Learning*. Association for the Advancement of Computing in Education (AACE), Vienna, Austria. Link.
- **Zahed, K., & Demir, M.** (2023). Nudging to Manage the Spread of COVID-19: Lessons Learned for the Next Pandemic. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 21695067231192244. DOI: 10.1177/21695067231192244.
- **Demir, M., *Johnson, C., *Cohen, M., *Grimm, D., Cooke, N.J., & Gorman, J.** Heart Rate Dynamics in Human-Machine Teaming. *The HFES Annual Meeting 66*, 2022: Atlanta, GA. DOI: 10.1177/1071181322661101.

- **Demir, M.** Dyadic Team Coordination Dynamics in Human-Machine Teams. *The HFES Annual Meeting 66*, 2022: Atlanta, GA. DOI: 10.1177/1071181322661470.
- **Yin, X., Clark, J., Johnson, C., Grimm, D., Zhou, S., Wong, M., Cauffman, S., Demir, M., Cooke, N.J., & Gorman, J.** Development of a Distributed Teaming Scenario for Future Space Operations: Semi-structured Interviews. *The HFES Annual Meeting 66*, 2022: Atlanta, GA [Accepted].
- **Cauffman, S., Cohen, M., Yin, X., Demir, M., Scholcover, F., Huang, L., & Cooke, N.J.** "I Am Here": Investigating Relationship Between Spatial Ability and Spatial Communication. *The HFES Annual Meeting 66*, 2022: Atlanta, GA. 66(1), 2021-2025. DOI: 10.1177/1071181322661189.
- **Peel, M., Wolff, A., Raimondo, F., Hehr, A., Bhatti, S., Wong, M., Demir, M.** Effects of Transparency Presentation Modality and Confidence on Trust and Situation Awareness in Human-Robot Teaming. *The HFES Annual Meeting 66*, 2022: Atlanta, GA [Accepted].
- **Raimondo, F., Wolff, A., Hehr, A., Wong, M., Peel, M., Demir, M.** Trailblazing Roblox Virtual Synthetic Testbed Development for Human-robot Teaming Studies. *The HFES Annual Meeting 66*, 2022: Atlanta, GA. DOI: 10.1177/1071181322661470.
- **Landfair, J., Nguyen, T., Magaldino, C., Amazeen, P. G., Huang, L., & Demir, M.** (2022). Dynamic Modeling of Trust in Automation in Human-Autonomy Teaming. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 66(1), 1174-1178. DOI: 10.1177/1071181322661463.
- **Nguyen, T., Magaldino, C., Landfair, J., Demir, M., Amazeen, P., & Kang, Y.** Distinguishing Driving Behavior Using the Dynamical Systems Analysis (DSA) Toolbox: Implications for Trust in Automation. *The HFES Annual Meeting 66*, 2022: Atlanta, GA [Accepted].
- **Rodriguez, L., Orellana, C., Gremillion, G., Huang, L., Demir, M., Cooke, N., Metcalfe, J., & Kang, Y.** Distinguishing Performance and Relative Risk Dynamics during Driving Simulation Tasks under Distinct Automation Conditions. *The HFES Annual Meeting 66*, 2022: Atlanta, GA 66(1), 1230-1234. https://doi.org/10.1177/1071181322661471 .
- **Orellana, C., Rodriguez, L., Gremillion, G., Huang, L., Demir, M., Cooke, N., Metcalfe, J., Kang, Y., & Amazeen, P.** The Impact of Automation Conditions on Reliance Dynamics and Decision-Making. *The HFES Annual Meeting 66*, 2022: Atlanta, GA [Accepted].
- **Canan, M., Demir, M., & Kovacic, S.** (2022). A Probabilistic Perspective of Human-Machine Interaction. *Hawaii International Conference on System Sciences*. Hawaii. DOI: 978-0-9981331-5-7.
- **Demir, M., Canan, M., & Cohen, M.** (2021). Modeling Team Interaction and Interactive-Decision Making in Agile Human-Machine Teams. *IEEE Conference of Human-Machine Systems (ICHMS) 2th*, 2021: Germany.
- **Cohen, M., Demir, M., Chiou, E., & Cooke, N.J.** (2021). The Dynamics of Trust and Verbal Anthropomorphism in Human-Autonomy Teaming. *IEEE International Conference of ICHMS 2th*, 2021: Germany. DOI: 10.1109/ICHMS53169.2021.9582655.
- **Bhatti, S., Demir, M., Cooke, N.J., & Johnson, C.J.** (2021). Assessing Communication and Trust in an AI Teammate in a Dynamic Task Environment. *IEEE International Conference of ICHMS 2th*, 2021: Germany.

- **Wong, M., Ezenyilimba, A., Wolff, A., Anderson, T., Chiou, E., Demir, M., & Cooke, N.J.** (2021). A Remote Synthetic Testbed Development for Human-Robot Teaming: An Iterative Design Process during the Covid-19 Pandemic. *The HFES Annual Meeting 65*, 2021: Baltimore, MD.

- **Cohen, M., Demir, M., Chiou, E., & Cooke, N.J.** (2021). Anthropomorphism and Trust in Human-Autonomy Team Communication Dynamics. *The HFES Annual Meeting 65*, 2021: Baltimore, MD. DOI: 10.1177/1071181321651231.

- **Rodriguez, L., Demir, M., et al.** (2021). Dynamics of Trust in Automation and Interactive Decision Making during Simulation Tasks. *The HFES Annual Meeting 65*, 2021: Baltimore, MD.

- **Canan, M., & Demir, M.** (2021). Addressing Two Central Issues of Team Interaction Dynamics: A Human-Centered Approach to the Whole is Greater than the Sum of Its Parts. *International Conference on Applied Human Factors and Ergonomics 2021*: New York, NY. DOI: 10.1007/978-3-030-80285-1_8.

- **Lieber, C., Demir, M., Cooke, N.J., & Ligda, S.** (2021). Deviations in Closed Loop Communications between Air Traffic Controllers and Pilots as a Predictor of Loss of Separation. *2021 AIAA Aviation and Aeronautics Forum*: Washington, DC.

- **Demir, M., Amazeen, P, & Cooke, N.J.** (2020). Examining Human-Autonomy Interaction and Explicable Behavior in a Dynamic LEGO Construction Task. *Complex Adaptive Systems Conference with Theme: Leveraging AI and Machine Learning for Societal Changes, CAS 2019*. Malvern, PA. DOI: 10.1016/j.procs.2020.02.270.

- **Cooke, N.J., Demir, M., & Huang, L.** (2020). A Framework for Human-Autonomy Team Research. *Human-Computer Interaction International Conference*. Copenhagen, Denmark. DOI: 10.1007/978-3-030-49183-$3_1$1.

- **Johnson, C.J., Demir, M., Wolff, A.T., & Cooke, N.J.** (2020). The Impact of Team Training on Coordination and Trust Calibration in Human-Autonomy Teaming. *The Human Factors and Ergonomics Society Annual Meeting 64*: Virtual. DOI: 10.1177/1071181320641031.

- **Johnson, C.J., Demir, M., Zabala, G., He, H., Grimm, D., Radigan, C., & Wolff, A.** (2020). Training and Verbal Communications in Human-Autonomy Teaming under Degraded Conditions. *2020 IEEE Conference on COGSIMA*. DOI: 10.1109/CogSIMA49017.2020.9216061.

- **Grimm, D., Demir, M., Gorman, J., Cooke, N. J., & McNeese, N.** (2019). Layered Dynamics and System Effectiveness of Human-Autonomy Teams under Degraded Conditions. *The Human Factors and Ergonomics Society Annual Meeting 63*: Seattle, WA. DOI: 10.1177/1071181319631307.

- **Demir, M., & Cooke, N.** (2019) Understanding Controller-Pilot Interaction in the Context of Dynamical Systems. *The Human Factors and Ergonomics Society Annual Meeting 63*: Seattle, WA. DOI: 10.1177/1071181319631493.

- **Demir, M., McNeese, N.J., Cooke, N.J., Grimm, D., & Gorman, J.** (2019). An Empirical Exploration of Resilience in Human-Autonomy Teams Operating Remotely Piloted Aircraft Systems. *The Human Factors and Ergonomics Society Annual Meeting 63*: Seattle, WA. DOI: 10.1177/1071181319631020.

- **Demir, M., McNeese, N.J., & Cooke, N.J.** (2019). Team Coordination on Team Situation Awareness in Human-Autonomy Teaming. *The HFES Annual Meeting 63*: Seattle, WA. DOI: 10.1177/1071181319631259.

- **Demir, M., Johnson, C., Grimm, D., Gorman, J., & Cooke, N. J.** (2019). Effective Team Interaction for Adaptive Training and Situation Awareness in Human-Autonomy Teaming. *2019 IEEE Conference on Cognitive and Computational Aspects of Situation Management*. Las Vegas, NV. DOI: 10.1109/COGSIMA.2019.8724202.

- **Lematta, G., Coleman, P., Chiou, E., McNeese, N., Demir, M., & Cooke, N.J.** (2019). Developing Human-Robot Team Interdependence in a Synthetic Task Environment. *International Conference on Applied Human Factors and Ergonomics 2019*: Washington, DC. DOI: 10.1177/1071181319631433.

- **Demir, M., Ligda, S., Cooke, N.J., Seeds M., Harris, M., & Niemczyk, M.** (2019). Controller-Pilot Communication as an Index of Human Performance in the National Airspace System. *20th International Symposium on Aviation Psychology*: Dayton, OH.

- **Lematta, G., Coleman, P., Chiou, E., McNeese, N., Demir, M., & Cooke, N.J.** (2019). Explanations to Support Trust Calibration and Situation Awareness in Human-Robot Teaming. *International Conference on Applied Human Factors and Ergonomics 2019*: Washington, DC.

- **Ligda, S., Seeds, M., Harris, M., Lieber, C., Demir, M., & Cooke, N.J.** (2019). Monitoring Human Performance in Real-Time for NAS Safety Prognostics. *2019 AIAA Aviation and Aeronautics Forum*: Dallas, TX.

- **McNeese, N. J., Demir, M., Cooke, N., Chiou, E., & Yanikian, G.** (2019). Understanding the Role of Trust in Human-Autonomy Teaming. *Hawaii International Conference on System Sciences*. Hawaii.

- **Demir, M., McNeese, N. J., & Cooke, N. J.** (2018). Dyadic Team Interaction and Shared Cognition to Inform Human-Robot Teaming. *The Human Factors and Ergonomics Society Annual Meeting*. Philadelphia, PA. DOI: 10.1177/1541931218621028.

- **Grimm, D., Demir, M., Gorman, J., & Cooke, N. J.** (2018). Systems Level Evaluation of Resilience in Human-Autonomy Teaming under Degraded Conditions. *2018 IEEE Resilience Week*. Denver, CO. 124-130. DOI: 10.1109/RWEEK.2018.8473561.

- **Grimm, D., Demir, M., Gorman, J., & Cooke, N. J.** (2018). The Complex Dynamics of Team Situation Awareness in Human-Autonomy Teaming. *2018 IEEE Conference on Cognitive and Computational Aspects of Situation Management*. Boston, MA. 103-109. DOI: 10.1109/COGSIMA.2018.8423990.

- **Grimm, D., Demir, M., Gorman, J., & Cooke, N. J.** (2018). Team Situation Awareness in Human-Autonomy Teaming: A Systems Level Approach. *The Human Factors and Ergonomics Society Annual Meeting*. PA. DOI: 10.1177/1541931218621034.

- **Bracken, B. K., Amazeen, P.G., Likens, A.D., Demir, M., & Gibbons, C. T.** (2018). Comparison of a Custom Functional Near-Infrared Spectroscopy Sensor, a Peripheral SpO2 Sensor, and a Standard Laboratory Sensor (BIOPAC) for RR-Interval Assessment. *Proceedings of the 11th International Joint Conference on Biomedical Engineering Systems and Technologies*. Funchal, Madeira—PORTUGAL. DOI: 10.5220/0006728402810285.

- **Demir, M., McNeese, N., & Cooke, N.J.** (2017). Team Synchrony in Human-Autonomy Teaming. In: Chen J. (eds) Advances in Human Factors in Robots and Unmanned Systems. *International Conference on Applied Human Factors and Ergonomics 2017*: Los Angeles, LA.: 303-312. DOI: 10.1007/978-3-319-60384-$1_2$9.

- **Demir, M., Amazeen, P.G., McNeese, N. J., Cooke, N.J., & Likens, A. D.** (2017). Team Coordination Dynamics in Human-Autonomy Teaming. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting.* Austin, TX.: Vol 61. 236. DOI: 10.1177/1541931213601542. (DISSERTATION WORK)

- **Demir, M., McNeese, N., & Cooke, N.J.** (2016). Team Communication Behaviors of the Human Automation Teaming. *Cognitive Methods in Situation Awareness and Decision Support (CogSIMA), 2016 IEEE International Inter-Disciplinary Conference.* San Diego, CA. 28-34: DOI: 10.1109/COGSIMA.2016.7497782. *IEEE BEST PAPER AWARD (2016).*

- **Demir, M., McNeese, N., Cooke, N.J., & Myers, C.** (2016). The Synthetic Teammate as a Team Player in Command-and-Control Teams. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting.* Washington, DC: Vol. 60. 116. DOI: 10.1177/1541931213601026.

- **Myers, C., Ball, J., Cooke N., Demir, M., McNeese, N., Caisse, M. Freiman, M. & Halverson, T.** (2016). Maintaining Team Training Efficiency with Autonomous Synthetic Teammates. *The Inter-service/ Industry Training Simulation and Education Conference.* Orlando, FL.

- **Bracken, B.K., Negri, A., Amazeen, P., Fedele, M., Likens, A., Demir, M., Elkin-Frankston, S., Palmon, N., Cooke, N.J.** (2016). Second Validation of a System to Monitor, Extract, and Decode Indicators of Cognitive Workload (MEDIC). *The Medical Health Systems research Symposium (MHSRS).* Kissimmee, FL. Retrieved from Link.

- **Demir, M., McNeese, N. J., Cooke, N. J., Ball, J. T., Myers, C., & Frieman, M.** (2015). Synthetic Teammate Communication and Coordination with Humans. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 59(1), 951–955. DOI: 10.1177/15419312 15591275.

- **Demir, M., & McNeese, N.** (2015). The Role of Recognition Primed Decision Making in Human-Automation (H-A) Teaming. *International Conference on Naturalistic Decision Making 2015.* McLean, VA. Retrieved from Link.

- **Demir, M., & Cooke, N. J.** (2014). Human Teaming Changes Driven by Expectations of a Synthetic Teammate. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 58(1), 16–20.

Book Chapters

- **H**uang, L., Cooke, N.J., Gutzwiller, R., Berman, S., Chiou, E., Demir, M., & Wenlong Z. (2020). Distributed Dynamic Team Trust in Human, Artificial Intelligence, and Robot Teaming. In J. Lyons (Ed.), Trust in Human-Robot Interaction (pp. 13-37). Academic Press, Elsevier. DOI: 10.1016/B978-0-12-819472-0.00013-7.

- **M**cNeese, N., Demir, M., & Reddy, M. (2017). Methodological Techniques and Approaches to Developing Empirical Insights of Cognition During Collaborative Information Seeking. In Cognitive Systems Engineering: An Integrative Living Lab Framework (pp. 85-105). CRC Press, Taylor & Francis.

Published Magazines

- **Tenhundfeld, N., & Demir, M.** (2020). Do You Trust Your Parachute? A call to study human-machine teaming in uncontrolled environments. *Call Signs* 9.1. Link.

Presentations (Internal & External to ASU)

- **Demir, M.** (2021). Evaluating and Developing Sociotechnical Systems through Human-Systems Integration in Various Dynamic Task Contexts. *School of Modeling, Simulation, & Training Seminar Series, Binghamton University.* October 1. Binghamton, NY.
- **Demir, M.** (2020). Evaluating and Developing Sociotechnical Systems through Human-Systems Integration in Various Dynamic Task Contexts. *School of Modeling, Simulation, & Training Seminar Series, University of Central Florida.* October 8. Virtual.
- **Fiore, S.M., Bracken, B., Demir, M., Freeman, J., & Lewis, M.** (2020). Transdisciplinary Team Research to Develop Theory of Mind in Human-AI Teams. *The HFES Annual Meeting 64*: Virtual (Panel).
- **Demir, M.** (2019). Evaluating and Developing Sociotechnical Systems through Human-Systems Integration in Various Dynamic Task Contexts. *The Simon A. Levin Mathematical, Computational and Modeling Sciences Center.* Brown Bag Seminar at Arizona State University. March 1. Tempe, AZ.
- **Demir, M., & Cooke, N.J.** (2019). Team Trust and Resilience in Human-Autonomy Teaming. *International Conference on Applied Human Factors and Ergonomics 2019*: Washington, DC.

TEACHING EXPERIENCE

Faculty Associate—*Ira A. Fulton Schools of Engineering, Arizona State University, Mesa, Arizona*

- **TEM 294: Social Entrepreneurship** (Spring 2021, Fall 2022)
  Introduced the concepts and different organizational models for Social Entrepreneurship ventures.
- **HSE 430: Intermediate Statistics for Human Systems Research II** (Fall 2018-Present)
  Designed and taught a course focused on Analysis of Variance Methods and Introduction to Ordinary Least Squares Regression for undergraduate engineers.
- **TMC 480: Senior Project** (Summer 2013, Summer 2017)
  Taught a 3-unit writing-intensive course for senior entrepreneurship majors.
- **TMC 330: Leading the Enterprise** (Summer 2014, Summer 2016, Summer 2017)
  Taught a course focused on the concepts of management and leadership for entrepreneurship majors.
- **TEM 100: Seminar in Entrepreneurship** (Summer 2014)
  Taught a course for freshman entrepreneurship majors focused on the core concepts of entrepreneurship.
- **OMT 430: Ethical Issues in Technology** (Spring 2014)
  Taught a course on the legal and ethical challenges facing managers, targeted at undergraduate entrepreneurship majors.
- **OMT 494: Lean Statistical Process Improvement** (Fall 2012, Spring 2013, Fall 2013)
  Taught a course focused on the methods, tools, and best practices of quality management and lean process improvement for undergraduate entrepreneurship majors.

- **TEM 194: Sustainability in Entrepreneurship and Innovation** (Spring 2013, Fall 2013, Summer 2013)
  Developed and taught a course focused on the foundations for understanding key issues associated with sustainable business for undergraduate entrepreneurship majors.

- **TMC 346: Management Dynamics** (Fall 2012)
  Taught a course on the core concepts of management and leadership for undergraduate majors.

RESEARCH EXPERIENCE

Current Projects

Texas A&M University (January 2024 — Present)

Project 1: Real-Time Stress Monitoring, Detection, and Management in College Students (2024–Present) This project investigates the efficacy of a mobile health (mHealth) intervention, Mental Health Evaluation and Lookout Program (mHELP), which integrates a smartwatch sensor and machine learning (ML) algorithms for real-time stress detection and self-management in college students. It involved a 12-week randomized controlled trial with university student iPhone users experiencing moderate symptoms of anxiety. Findings indicate a significant decrease in "Moments of Stress" (MS) among the treatment group compared to the control group.

Project 2: An Integrative, Digital Health Approach to Veteran-Centered PTSD Care (2024–Present) Has been studied in terms of psychophysiological outcomes, including Heart Rate Variability (HRV), stress assessments, and activity data, and has integrated wearable technology with real-time feedback. This project specifically involves investigating the efficacy of utilizing smartwatch-based sensors and a paired smartphone stress self-management app to continuously monitor and respond to PTSD hyperarousal in American veterans, incorporating a digital health self-management intervention with intensive group-based physical activity.

Project 3: Wearable Sensor-Driven Self-Management for Hypertension (Proposal Stage) Tested a digital coaching intervention proposal targeting high blood pressure and analyzed the data.

Arizona State University (January 2024 — Present)

Current Projects

Project 4: Cross-Institutional Research Engagement Network (CIREN) (2025–Present) Role: CI Facilitator (Funded by National Science Foundation - NSF) Collaborators: Arizona State University University of Tennessee, Knoxville Description: This initiative provides training, support, and mentorship to develop future cyberinfrastructure facilitators capable of integrating advanced computing and AI into high-impact research. The role includes engagement with researchers across diverse disciplines, outreach, and organizing technical consulting and training.

Project 5: AI Tutor Teammate Adaptability for Discovery Curiosity and Learning in Interactive Molecular Dynamics (2024–Present) (Funded by the AFOSR)
This project focuses on exploring the impact of an Artificial Intelligence (AI) tutor teammate on student curiosity-driven engagement and learning effectiveness during Interactive Molecular Dynamics (IMD) tasks on the Visual Molecular Dynamics (VMD) platform. It examines the AI

tutor teammate's role in stimulating and sustaining student curiosity through dynamic adjustments via a large language model in a Wizard-of-Oz paradigm. The study further assesses how AI interventions shape student engagement, foster discovery curiosity, and enhance team performance within the IMD learning environment. The project employs a mixed-methods exploratory design, utilizing Cross Recurrence Quantification Analysis (CRQA) to analyze communication and coordination dynamics within student-AI interactions. The findings have been accepted for publication in the Journal of Cognitive Computation and presented at the Human Factors and Ergonomics Society Annual Conference (HFES-ASPIRE).

Past Projects

Arizona State University (June 2017 — 2024)

Project 1: Human-Robot Interaction (Funded by the Office of Naval Research - ONR)
Assisted in conducting an experiment using a simulated task environment and human dyads in a simulated victim-locator Minecraft task environment, considering an Urban Search and Rescue (USAR) setting. Conducted nonlinear and advanced statistical methods. Presented and published the results in *Human Factors* and the *Journal of Cognitive Systems Research*. **Project 2: Improving Situation Awareness in Distributed Human-Robot Teams** (Funded by Air Force Office of Scientific Research (AFOSR) Trust and Influence Program)
Assisted in designing experiments to generate robot planning algorithms well-suited for teaming with humans, providing essential behaviors necessary for effective cognitive teamwork and preserving team situation awareness. Collected sensor-based, survey-based, and time series data. Conducted nonlinear and advanced statistical methods. Presented and published the results in several conferences, including IEEE, *Human Factors*, and *Cognitive Systems Research*.

Project 3: Real-Time Safety Monitoring for U.S. National Airspace System (NAS) (Funded by NASA)
Analyzed data to understand how Air Traffic Controller (ATC) factors interact with NAS factors to affect ATC risk. Conducted nonlinear and advanced statistical methods. Presented and published the results in several conferences in *Human Factors* and *Aviation Psychology*.

Project 4: Synthetic Teammates as Team Players: Coordination of Human and Synthetic Teammates (Funded by the ONR)
Conducted an experiment with human-autonomy teams (using the Wizard of Oz Paradigm, where a well-trained experimenter mimics a synthetic agent) to understand how human-autonomy teams respond to degraded conditions (e.g., automation and autonomy failures, and malicious cyber-attacks) over time in a longitudinal study. Collected sensor-based, survey-based, and time series data. Conducted nonlinear and advanced statistical methods. Presented and published the results in several conferences, including IEEE, *Human Factors*, and *Cognitive Systems Research*.

Project 5: Synthetic Teammates as Team Players: Coordination of Human and Synthetic Teammates (Funded by the ONR)
Conducted two experiments with human-autonomy teams (where the synthetic agent was either human or ACT-R cognitive modeling) to understand how team coordination dynamics differ between all-human and human-synthetic teams over time (using repeated measures).

Project 6: Monitor, Extract, and Decode Indicators of Cognitive Workload (MEDIC) (Funded by the AFOSR)
Assisted in conducting cognitive and physical tasks to test sensors designed to automatically sense indicators of cognitive workload, augment performance observations, and provide insight into factors underlying performance. Assisted in data coding and analysis. Findings were presented and published in *Biomedical Engineering and Technologies*.

Graduate Research Assistant: The Department of Technological Entrepreneurship and Management, Arizona State University (October 2010 — May 2012)

Project 7: Aerospace & Defense Research Collaboratory Research Project: Virtual Mentor for Defense Acquisition Information Requirements (Funded by The Science Foundation Arizona, Phoenix, Arizona)
Advisors: Dan Shunk, Ph.D., Gary Waissi, Ph.D., and Jane Humble, Ph.D.
Prepared and applied a database for Aerospace and Defense companies, focusing on generating training materials and a system that significantly reduces comprehension time for critical information in the Department of Defense (DoD) acquisition process among Systems Engineers (SEs) and Small-Medium Enterprises (SMEs) that are suppliers in the Arizona aerospace and defense industry. Also assisted in the development of a Graphical User Interface (GUI), and prepared the Virtual Mentor (VM) user manual and technical manual.

PROFESSIONAL SERVICE

Professional Society Membership

- **Institute of Electrical and Electronics Engineers (IEEE)**, Full Member
- **Human Factors and Ergonomics Society (HFES)**, Associate Full Member
- **Association for Computing Machinery (ACM)**, Full Member
- **American Society for Engineering Education (ASEE)**, Full Member
- **Complex Systems Society (CSS)**, Full Member

Publication Reviewer (Journals)

- **Cognitive Systems Research**
- **Ergonomics**
- **Human Factors**
- **IEEE Transactions on Human-Machine Systems**
- **Frontiers in Psychology**
- **PlosOne**
- **International Journal of Human-Computer Studies**

ADDITIONAL SKILLS

- **Statistical Programming:** R, SAS, SPSS, Minitab, MPlus, Matlab
- **Nonlinear Dynamical Methods:** Sample Entropy, Recurrence Quantification Analysis, Stability Analysis, Detrended Fluctuation Analysis
- **Statistical Modelling:** Growth Curve Modelling, Multilevel Modelling, Structural Equation Modelling
- **Languages:** English (Professional), Turkish (Professional), Spanish (Rudimentary), Greek (Rudimentary)

PROFESSIONAL ACTIVITIES AND ORGANIZATIONS

- **Public Policy Committee Chair** - The American Institute of Aeronautics and Astronautics, 2022-2024
- **Societal Impact Committee Member** - Human Factors and Ergonomics Society, 2018-2019

MENTORSHIP

Postdoctoral Fellows

- **Stephen Cauffman** — Human Systems Engineering (Arizona State University, Spring 2021-Present)
- **Federico Scholcover** — Human Systems Engineering (Arizona State University, Fall 2020-Spring 2021)

Ph.D. Students (Mentored/Supervised)

- **Lucero R. Rodriguez** — Applied Mathematics of Social Science (Arizona State University, Fall 2020-Present)
- **Myke Cohen** — Human Systems Engineering (Arizona State University, Fall 2020-Present)
- **Akuadasuo Ezeyilimba** — Human Systems Engineering (Arizona State University, Fall 2019-Present)
- **Manrong She** — Department of Industrial Engineering (Tsinghua University, Fall 2017-Present)
- **David Grimm** — Department of Psychology (Georgia Tech University, Spring 2018-Present)
- **Craig Johnson** — Human Systems Engineering (Arizona State University, Fall 2018-Present)
- **Sarah Ligda** — Human Systems Engineering (Arizona State University, Fall 2018-Present)
- **Christopher S. Lieber** — Human Systems Engineering (Arizona State University, Fall 2018-Present)
- **Verica Buchanan** — Human Systems Engineering (Arizona State University, Fall 2018-Present)
- **Christopher Corral** — Human Systems Engineering (Arizona State University, Fall 2017-Spring 2019)

Master's Students (Mentored/Supervised)

- **Christian DiMino** — Human Systems Engineering (Arizona State University, Fall 2020-Present)
- **Alexander Hehr** — Human Systems Engineering (Arizona State University, Fall 2020-Present)
- **Alexandra Wolff** — Human Systems Engineering (Arizona State University, Fall 2018-Present)

- **Margaret Wong** — Human Systems Engineering (Arizona State University, Fall 2019-Present)
- **Andrew Gin** — Human Systems Engineering (Arizona State University, Fall 2018-Fall 2020)
- **Jade Best Driggs** — Human Systems Engineering (Arizona State University, Fall 2016-Spring 2017)
- **Shawaiz Bhatti** — Human Systems Engineering (Arizona State University, Fall 2018-Fall 2020)
- **Christopher Di Giulio** — Human Systems Engineering (Arizona State University, Fall 2017-Spring 2019)
- **Pamela Coleman** — Human Systems Engineering (Arizona State University, Spring 2018-Spring 2019)
- **Mariah Harris** — Human Systems Engineering (Arizona State University, Spring 2019-Spring 2019)
- **Nate Kelley** — Human Systems Engineering (Arizona State University, Spring 2019-Fall 2020)

Undergraduate Students (Mentored/Supervised)

- **Felix Raimondo** — Human Systems Engineering (Arizona State University, Fall 2020-Present)

Table 1: *
QUANTITATIVE COURSEWORK

Course	**Instructor**	**Department**
Analysis of Variance	Craig Enders	Psychology
Regression	Leona Aiken	Psychology
Multivariate Statistics	Leona Aiken	Psychology
Multi-Level Modeling	Craig Enders	Psychology
Data Mining in Psychology	Kevin Grimm	Psychology
Data Mining in Engineering	George Runger	Engineering
Engineering Statistics	Douglas Montgomery	Engineering
Dynamical Systems Modeling in Psychology	Polemnia Amazeen	Psychology
Nonlinear Time Series Methods	Michael Riley, Michael Richardson	Psychology
	Rick Dale, Anthony Chemero	American Psychological Association
Structural Equation Modeling for Longitudinal Studies	Craig Enders, Kevin Grimm	Psychology