

# GREGORY J. STEIN

Department of Computer Science, College of Engineering and Computing  
George Mason University, 4511 Patriot Cir., Fairfax, VA 22030  
email: [gjstein@gmu.edu](mailto:gjstein@gmu.edu), tel: +1-703-993-6822

## ACADEMIC DEGREES

- Ph.D. in Electrical Engineering & Computer Science** Sep 2015 – Feb 2020  
MIT Computer Science & Artificial Intelligence Laboratory Cambridge, MA  
Concentration: *Robot Autonomy & Machine Learning* | GPA 5.0/5.0
- S.M. in Electrical Engineering & Computer Science** Sep 2013 – Aug 2015  
MIT Research Laboratory of Electronics Cambridge, MA  
Concentration: *Numerical Modeling & Ultrafast Laser Physics* | GPA 5.0/5.0
- B.S. in Engineering Physics** Sep 2009 – May 2013  
Cornell University College of Engineering Ithaca, NY  
Concentration: *Numerical Modeling & Ultrafast Laser Physics* | GPA 4.0/4.3

## ACADEMIC POSITIONS

- George Mason University, Fairfax, VA | RAIL Group**  
Assistant Professor of Computer Science Aug 2020 – present  
• Runs the Robotic Anticipatory Intelligence and Learning (RAIL) Group at GMU.
- MIT | Robust Robotics Group**  
Research Specialist Limited May 2020 – July 2020  
• Continued research post-PhD with Prof. Nicholas Roy at MIT.
- MIT | Robust Robotics Group**  
Ph.D. Graduate Researcher | Robotics & Machine Learning Aug 2015 – May 2020  
• Thesis Committee: Nicholas Roy (Advisor), Leslie P. Kaelbling, George Konidaris, Phillip Isola  
• Developed method for planning with high-level, topological actions to tractably estimate cost when navigating through unknown environments, improving expected cost of travel through real-world environments by 20% yet with orders of magnitude less data than Deep Reinforcement Learning.  
• Formulated sparse map representation to overcome noise limitations of monocular SLAM to enable noise-robust topological planning in uncertain environments.  
• Created method for realistic synthetic data generation with unsupervised image-to-image translation; demonstrated real-world quadrotor obstacle avoidance trained only on synthetic data.
- MIT | Optics and Quantum Electronics Group**  
SM Graduate Researcher | Optics & Numerical Simulation Aug 2013 – Jul 2015  
• Advisor: Franz X. Kärtner  
• Designed and implemented numerical simulation tool to support optics experiments for lab of 12.  
• Co-authored 8 journal and 15 conference publications for work on numerical simulation.

## INDUSTRIAL, CONSULTING, AND SUMMER POSITIONS

- Niantic | Computer Vision Team**  
Intern (Jan) | Computer Vision Consultant (Feb – Apr) Jan 2018 – Apr 2018  
• Taught weekly seminars on computer vision fundamentals—including *Sparse Feature Learning*, *Deep Learning*, *Monocular SLAM* and *Bundle Adjustment*—to nascent Computer Vision Team.  
• Produced a weekly *literature deep dive* (as consultant) to educate Computer Vision Team on state-of-the-art results and further support development of Niantic’s world-scale AR platform.

## HONORS, AWARDS, AND PROFESSIONAL RECOGNITIONS

<b>Nominated for GMU Stearns Center Teaching Excellence Award</b>	AY2023
<b>Best Paper Finalist</b>   Conference on Robot Learning Nominated a top-3 paper out of over 300 submissions.	Oct 2018
<b>Best Oral Presentation</b>   Conference on Robot Learning Selected best presentation for talk to over 400 conference attendees.	Oct 2018
<b>Trevor R. Cuykendall Memorial Award</b>   Cornell University Awarded for outstanding teaching assistantship in Applied & Engineering Physics.	Jun 2013
<b>Summa Cum Laude</b>   Cornell University Awarded for exemplary grade point average.	Jun 2013
<b>Honors in Engineering Physics</b>   Cornell University Awarded for exceptional undergraduate thesis.	Jun 2013

## PUBLICATIONS

Citation Count: 992

H-index: 16

*An underline denotes students wholly or partially supervised by me.*

## REFEREED PUBLICATIONS

- [1] Abhish Khanal, Abhishek Paudel, Duy Hung Pham, and **Gregory J. Stein**. “Multi-Robot Learning-Informed Task Planning Under Uncertainty.” In: *International Conference on Robotics and Automation (ICRA)*. *in press*. 2026.
- [2] Duc Nguyen, Saad Abdul Ghani, Andrew Marshall, Allison Andreyev, **Gregory J. Stein**, and Xuesu Xiao. “Failing Gracefully: Mitigating Impact of Inevitable Robot Failures.” In: *International Conference on Robotics and Automation (ICRA)*. *in press*. 2026.
- [3] Hoang-Dung Bui, Erion Plaku, and **Gregory J. Stein**. “Multi-Agent Path Finding Under Limited Communication Range Constraint via Dynamic Leading.” *Journal of Artificial Intelligence Research (JAIR)*. *in press*. 2026.
- [4] Philip Baldoni, James D. Turner, James McMahon, and **Gregory J. Stein**. “Towards Low-Risk Surfacing of Autonomous Underwater Vehicles in the Presence of Maritime Traffic.” *IEEE Robotics and Automation Letters (RA-L)*. 11(3), pp. 3438–3445. 2026. [*Impact Factor: 5.3*]
- [5] Roshan Dhakal, Duc M. Nguyen, Tom Silver, Xuesu Xiao, and **Gregory J. Stein**. “Anticipatory Task and Motion Planning: Improved Rearrangement in Persistent Continuous-Space Environments.” *IEEE Robotics and Automation Letters (RA-L)*. 11(2), pp. 1850–1857. 2026. [*Impact Factor: 5.3*]
- [6] Abhish Khanal, Joseph Prince Mathew, Cameron Nowzari, **Gregory J. Stein**. “Learning-Augmented Model-Based Multi-Robot Planning for Time-Critical Search and Inspection Under Uncertainty.” In: *International Conference on Automation Science and Engineering (CASE)*. pp. 969–975. 2025. [*Acceptance Rate: 40%*]
- [7] Arnab Debnath, **Gregory J. Stein**, and Jana Košecká, “A Hybrid Approach to Indoor Social Navigation: Integrating Reactive Local Planning and Proactive Global Planning.” *International Conference on Robotics and Automation (ICRA)*. pp 10432–10438. 2025. [*Acceptance Rate: 40%*]
- [8] Md Ridwan Hossain Talukder, Raihan Islam Arnob, and **Gregory J. Stein**. “Anticipatory Planning for Performant Long-Lived Robot in Large-Scale Home-Like Environments.” In: *International Conference on Robotics and Automation (ICRA)*. pp. 10831–10837. 2025. [*Acceptance Rate: 40%*]

- [9] Abhishek Paudel, Xuesu Xiao, and **Gregory J. Stein**. “Multi-Strategy Deployment-Time Learning and Adaptation for Navigation under Uncertainty.” In: *Conference on Robot Learning (CoRL)*. 2024. [Acceptance Rate: 35%]
- [10] Yanlin Zhou, Manshi Limbu, **Gregory J. Stein**, Xuan Wang, Daigo Shishika, and Xuesu Xiao. “Team Coordination on Graphs: Problem, Analysis, and Algorithms.” In: *International Conference on Intelligent Robots and Systems (IROS)*. pp. 5748–5755. 2024. [Acceptance Rate: 40%]
- [11] Raihan Islam Arnob and **Gregory J. Stein**. “Active Information Gathering for Long-Horizon Navigation Under Uncertainty by Predicting the Value of Information.” In: *International Conference on Intelligent Robots and Systems (IROS)*. pp. 3036–3042. 2024. [Acceptance Rate: 40%]
- [12] Abhish Khanal, Hoang-Dung Bui, Erion Plaku, and **Gregory J. Stein**. “Learning-informed Long-Horizon Navigation under Uncertainty for Vehicles with Dynamics.” In: *International Conference on Intelligent Robots and Systems (IROS)*. pp. 3069–3075. 2024. [Acceptance Rate: 40%]
- [13] Hoang-Dung Bui, Erion Plaku, and **Gregory J. Stein**. “Multi-Robot Guided Sampling-Based Motion Planning with Dynamics in Partially Mapped Environments.” *IEEE Access*, vol. 12, pp. 56448–56460. 2024. [Impact Factor: 3.6]
- [14] Yimeng Li, Arnab Debnath, **Gregory J. Stein**, and Jana Kosecka. “Learning-augmented model-based planning for visual exploration.” In: *International Conference on Intelligent Robots and Systems (IROS)*. pp. 5165–5171. 2023. [Acceptance Rate: 40%]
- [15] Raihan Islam Arnob and **Gregory J. Stein**. “Improving Reliable Navigation under Uncertainty via Predictions Informed by Non-Local Information.” In: *International Conference on Intelligent Robots and Systems (IROS)*. pp. 2830–2837. 2023. [Acceptance Rate: 40%]
- [16] Abhishek Paudel and **Gregory J. Stein**. “Data-Efficient Policy Selection for Navigation in Partial Maps via Subgoal-Based Abstraction.” In: *International Conference on Intelligent Robots and Systems (IROS)*. 2023. [Acceptance Rate: 40%]
- [17] Abhish Khanal, Hoang-Dung Bui, **Gregory J. Stein**, Erion Plaku: “Guided Sampling-Based Motion Planning with Dynamics in Unknown Environments.” In: *International Conference on Automation Science and Engineering (CASE)*. [Acceptance Rate: 40%]
- [18] Roshan Dhakal, Md Ridwan Hossain Talukder, **Gregory J. Stein**. “Anticipatory Planning: Improving Long-Lived Planning by Estimating Expected Cost of Future Tasks.” In: *International Conference on Robotics and Automation (ICRA)*. 2023. [Acceptance Rate: 40%]
- [19] Abhish Khanal and **Gregory J. Stein**. “Learning Augmented, Multi-Robot Long-Horizon Navigation in Partially Mapped Environments.” In: *International Conference on Robotics and Automation (ICRA)*. 2023. [Acceptance Rate: 40%]
- [20] **Gregory J. Stein** “Generating High-Quality Explanations for Navigation in Partially-Revealed Environments.” In: *Advances in Neural Information Processing Systems (NeurIPS)*. 2021. [Acceptance Rate: 26%]
- [21] Christopher Bradley, Adam Pacheck, **Gregory J. Stein**, Sebastian Castro, Hadas Kress-Gazit, and Nicholas Roy. “Learning and Planning for Temporally Extended Tasks in Unknown Environments.” In: *International Conference on Robotics and Automation (ICRA)*. 2021. [Acceptance Rate: 49%]
- [22] **Gregory J. Stein**, Christopher Bradley, Victoria Preston, and Nicholas Roy. “Enabling Topological Planning with Monocular Vision”. In: *International Conference on Robotics and Automation (ICRA)*. 2020.
- [23] **Gregory J. Stein**, Christopher Bradley, and Nicholas Roy. “Learning over Subgoals for Efficient Navigation of Structured, Unknown Environments”. In: *Conference on Robot Learning (CoRL)*. 2018.
- [24] **Gregory J. Stein** and Nicholas Roy. “GeneSIS-RT: Generating Synthetic Images for training Secondary Real-World Tasks”. In: *International Conference on Robotics and Automation (ICRA)*. 2018.

- [25] Mycal Tucker, Derya Aksaray, Rohan Paul, **Gregory J. Stein**, and Nicholas Roy. “Learning Unknown Groundings for Natural Language Interaction with Mobile Robots”. In: *Robotics Research: The 18th International Symposium (ISRR)*. 2020.

## WORKSHOP PUBLICATIONS & UNPUBLISHED MANUSCRIPTS

- [1] Mohamed Aghzal, Erion Plaku, **Gregory J Stein**, and Ziyu Yao. “A survey on large language models for automated planning.” ArXiv Preprint. 2025.
- [2] Arnab Debnath, **Gregory J. Stein**, and Jana Kosecka. “SemNav: A Model-Based Planner for Zero-Shot Object Goal Navigation Using Vision-Foundation Models.” In: *Foundation Models Meet Embodied Agents Workshop at CVPR*. 2025.
- [3] Abhishek Paudel and **Gregory J. Stein**. “Deployment-time Selection of Prompts for LLM-informed Object Search in Partially-Known Environments.” In: *Workshop on on Foundation Models and Neuro-Symbolic AI for Robotics (FMNS) at ICRA*. 2025.
- [4] Shahriar Hossain, Abhishek Paudel, and **Gregory J. Stein**. “Enhancing Object Search by Augmenting Planning with Predictions from Large Language Models.” In: *Workshop on Learning Effective Abstractions for Planning, Conference on Robot Learning (CoRL)*. 2024.
- [5] Yimeng Li, Arnab Debnath, **Gregory J. Stein**, and Jana Kosecka. “Comparison of Model Free and Model-Based Learning-Informed Planning for PointGoal Navigation.” In: *Workshop on Learning, Perception, and Abstraction for Long-Horizon Planning, Conference on Robot Learning (CoRL)*. 2023.

## PHYSICS JOURNAL PUBLICATIONS

- [1] Krishna Murari, Giovanni Cirmi, Hüseyin Cankaya, Gregory J Stein, Benoit Debord, Frederic G er ome, Felix Ritzkosky, Fetah Benabid, Franz X K artner. “Sub-50 fs pulses at 2050 nm from a picosecond Ho:YLF laser using a two-stage Kagome-fiber-based compressor.” *Photonics Research*. 10(3). 2021 [*Impact Factor: 7.1*]
- [2] Krishna Murari, **Gregory J. Stein**, Huseyin Cankaya, Benoit Debord, Frederic Gerome, Giovanni Cirmi, Oliver D M ucke, Peng Li, Axel Ruehl, Ingmar Hartl, Fetah Benabid, and Franz X K artner. “Kagome-fiber-based pulse compression of mid-infrared picosecond pulses from a Ho:YLF amplifier”. *Optica* 3.8 (2016), pp. 853–853.
- [3] **Gregory J. Stein**, Phillip D Keathley, Peter Krogen, Houkun Liang, Jonathas P Siqueira, Chun-Lin Chang, Chien-Jen Lai, Kyung-Han Hong, Guillaume M Laurent, and Franz X K artner. “Water-window soft x-ray high-harmonic generation up to the nitrogen K-edge driven by a kHz, 2.1  $\mu\text{m}$  OPCPA source”. *Journal of Physics B: Atomic, Molecular and Optical Physics* 49.15 (2016).
- [4] Cheng Jin, **Gregory J. Stein**, Kyung-Han Hong, and Chii D Lin. “Generation of bright, spatially coherent soft X-ray high harmonics in a hollow waveguide using two-color synthesized laser pulses”. *Physical Review Letters* 115.4 (2015).
- [5] Chun-Lin Chang, Peter Krogen, Kyung-Han Hong, Luis E Zapata, Jeffrey Moses, Anne-Laure Calendron, Houkun Liang, Chien-Jen Lai, **Gregory J. Stein**, Phillip D Keathley, Guillaume Laurent, and Franz X K artner. “High-energy, kHz, picosecond hybrid Yb-doped chirped-pulse amplifier”. *Optics Express* 23.8 (2015), pp. 10132–10144.
- [6] Houkun Liang, Peter Krogen, Ross Grynko, Ondrej Novak, Chun-Lin Chang, **Gregory J. Stein**, Darshana Weerawarne, Bonggu Shim, Franz X K artner, and Kyung-Han Hong. “Three-octave-spanning supercontinuum generation and sub-two-cycle self-compression of mid-infrared filaments in dielectrics”. *Optics Letters* 40.6 (2015), pp. 1069–1072.
- [7] Chun-Lin Chang, Peter Krogen, Houkun Liang, **Gregory J. Stein**, Jeffrey Moses, Chien-Jen Lai, Jonathas P Siqueira, Luis E Zapata, Franz X K artner, and Kyung-Han Hong. “Multi-mJ, kHz, ps deep-ultraviolet source”. *Optics Letters* 40.4 (2015), pp. 665–668.

- [8] Chien-Jen Lai, Kyung-Han Hong, Jonathas P Siqueira, Peter Krogen, Chun-Lin Chang, **Gregory J. Stein**, Houkun Liang, Phillip D Keathley, Guillaume Laurent, Jeffrey Moses, Luis E Zapata, and Franz X Kärtner. “Multi-mJ mid-infrared kHz OPCPA and Yb-doped pump lasers for tabletop coherent soft x-ray generation”. *Journal of Optics* 17.9 (2015).
- [9] Kyung-Han Hong, Chien-Jen Lai, Jonathas P Siqueira, Peter Krogen, Jeffrey Moses, Chun-Lin Chang, **Gregory J. Stein**, Luis E Zapata, and Franz X Kärtner. “Multi-mJ, kHz, 2.1  $\mu\text{m}$  optical parametric chirped-pulse amplifier and high-flux soft x-ray high-harmonic generation”. *Optics Letters* 39.11 (2014), pp. 3145–3148.
- [10] Andrew J Lohn, Barney L Doyle, **Gregory J. Stein**, Patrick R Mickel, Jim E Stevens, and Matthew J Marinella. “Rutherford forward scattering and elastic recoil detection (RFSERD) as a method for characterizing ultra-thin films”. *Nuclear Inst. and Methods in Physics Research, B* 332 (Aug. 2014), pp. 99–102.

## TALKS

- [1] “Learning, Introspection, and Anticipation: Making Robot Planners Comfortable with Missing Knowledge.” **MIT**. Robotics Seminar. 1 hour invited talk. March 2026
- [2] “Learning, Introspection, and Anticipation for Effective and Reliable Task Planning Under Uncertainty.” **University of Virginia**. CS Seminar. 1 hour invited talk. October 2025
- [3] “Learning, Introspection, and Anticipation for Effective and Reliable Task Planning Under Uncertainty.” **UT Austin**. AI Seminar. 1 hour invited talk. September 2025
- [4] “Using Foundation Models for Performant Planning in Uncertain Environments.” **Robot Planning in the Era of Foundation Models Workshop at RSS**. Seminar. 20 minute invited talk. June 2025
- [5] “Learning, Introspection, and Anticipation for Effective and Reliable Task Planning Under Uncertainty.” **Virginia Tech Innovation Campus**. Seminar. 1 hour invited talk. February 2025
- [6] “Learning, Introspection, and Anticipation for Effective and Reliable Task Planning Under Uncertainty.” **Cornell University**. Robotics Seminar. 1 hour invited talk. February 2025
- [7] “Learning, Introspection, and Anticipation for Effective and Reliable Task Planning Under Uncertainty.” **University of Milan**. Robotics Seminar. 1 hour invited talk. January 2025
- [8] “Learning and Introspection for Effective and Reliable Task Planning Under Uncertainty: Towards Household Robots Comfortable with Missing Knowledge.” **Learning Effective Abstractions for Planning Workshop at CoRL**. 30 minute invited talk. November 2024
- [9] “Learning, Introspection, and Anticipation for Effective and Reliable Task Planning Under Uncertainty.” **Lehigh University**. Robotics Seminar. 1 hour invited talk. November 2024
- [10] “Learning, Introspection, and Anticipation for Effective and Reliable Task Planning Under Uncertainty.” **The AI Institute, Boston**. 1 hour invited talk. October 2024
- [11] “Learning, Introspection, and Anticipation for Effective and Reliable Task Planning Under Uncertainty.” **Northeastern University**. Robotics Seminar Series. 1 hour invited talk. October 2024.
- [12] “Learning, Introspection, and Anticipation for Effective and Reliable Task Planning Under Uncertainty.” **Stevens Institute of Technology, Stevens Institute for Artificial Intelligence (SIAI) Seminar Series**. 1 hour invited talk. September 2024.
- [13] “Performance, Reliability, and Online Improvement for Long-Horizon Planning under Uncertainty.” **Arizona State University, Robotics Seminar**. December 2023.
- [14] “Ensuring Reliability and Building Trust for Long-Horizon Planning under Uncertainty.” **Invited to give an hour-long (virtual) talk at Intel for their Deep Learning in Practice seminar series**. Virtual. April 2022.

[15] “Ensuring Reliability and Building Trust for Long-Horizon Planning under Uncertainty.” **ONR PI Meeting at MIT**. Invited to present an overview of my lab’s work for an ONR-led PI meeting. October 2022.

[16] “Learning-Augmented Anticipatory Planning: Building capable and trustworthy robots that plan despite missing knowledge” **Brown University**. Invited to give an hour long talk in a robotics focused weekly seminar series. August 2022.

[17] “Towards Interpretable Decision-Making Under Uncertainty via Subgoal-Based Representations for Planning” **AAAI-20 Fall Symposium on Cognitive Systems for Anticipatory Thinking**, Washington, DC. November 2020. (*Canceled due to COVID-19*)

## RESEARCH FUNDING

[1] Principal Investigator. Tactical Behavior, Coordination, and Obfuscation under Extreme Uncertainty. Army Research Lab. Team: Gregory J. Stein, Daigo Shishika, Xuan Wang, and Xuesu Xiao. Dates: 12/1/2024–11/30/2028. \$1,670,000 (Share 25%: \$417,500).

[2] Key Personnel. Full-Spectrum Intelligence, Surveillance, and Reconnaissance (ISR) Innovation and Integration. USAF, AFMC. Dates: 12/15/2023–8/17/2024. \$4,910,000 (Key Personnel, Share 0%).

[3] Principal Investigator. Fast and Reliable Online Retraining and Adaptation for Robot Planning Despite Missing World Knowledge. National Science Foundation. Dates: 6/1/2023–5/31/2026. \$499,481 (Share 100%: \$499,481).

## TEACHING & MENTORSHIP

### STUDENT MENTORSHIP

Name	Degree	Expected Graduation	My Role
Abhishek Paudel	CS PhD	Spring 2026	Advisor
Raihan Islam Arnob	CS PhD	Spring 2026	Advisor
Roshan Dhakal	CS PhD	Spring 2026	Advisor
Hoang-Dung Bui	CS PhD	Spring 2026	Advisor
Arnab Debnath	CS PhD	Spring 2026	Co-Advisor (with Jana Košecká)
Abhish Khanal	CS PhD	Fall 2026	Advisor
MD Ridwan Hossain Talukder	CS PhD	Spring 2027	Advisor
Philip Baldoni	CS PhD	Spring 2027	Advisor (part time)
Mohamed Agzhal	CS PhD	Spring 2028	Co-Advisor (with Ziyu Yao)
Nathaniel Mack	CS PhD	Spring 2030	Advisor (part time)

### COURSES TAUGHT AND EVALUATION

*All course evaluation scores are out of 5.*

Term	Course	# Students	Student Participation	Learning Outcomes	Course Env	Instructor Prep	Note
SP25	CS682: Computer Vision <i>Online/Pre-Recorded</i>	47	4.45	4.43	4.33	4.24	
FA24	CS485/ECE370 (cross-list) Autonomous Robotics	36	3.72	4.36	4.64	4.61	
SP24	CS482: Computer Vision (UGrad)	61	3.71	4.12	4.43	4.27	
FA23	CS695: Decision Making & Reinforcement Learning	36	4.47	4.68	4.77	4.77	ND
SP23	CS482: Computer Vision (UGrad)	60	3.54	4.19	4.54	4.34	
FA22	CS685: Autonomous Robotics	18	4.50	4.68	4.80	4.93	F+C
SP22	CS695: Foundations of Planning	27	4.12	4.91	4.89	4.86	ND

Term	Course	# Students	Teaching Rating	Course Rating	Note
FA21	CS682: Computer Vision (Grad)	7	4.80	4.80	
SP21	CS482: Computer Vision (UGrad)	44	3.67	3.67	F
FA20	CS682: Computer Vision (Grad)	19	4.70	4.55	F

*Key: newly developed (ND), first time taught (F), or a course where I made substantial changes (C).*

## SERVICE & LEADERSHIP

### MASON COMMITTEE SERVICE

PhD Committee (Member), FY2025  
 MS-CS Committee (Member), FY2024  
 MS-CS Committee (Member), FY2023, switched from PhD committee during 'busy season'  
 PhD Committee (Member), FY2023  
 CS Tenure-Track Hiring Committee (Member), FY2022  
 MS-CS Committee (Member), FY2021

### MASON PHD/MS STUDENT ADVISING COMMITTEE SERVICE

Abhish Khanal, Computer Science PhD, Comprehensive Exam, AY25  
Aniket Datar, Computer Science PhD, Comprehensive Exam, AY25  
Mohammad Nazeri, Computer Science PhD, Comprehensive Exam, AY25  
Chenhui Pan, Computer Science PhD, Comprehensive Exam, AY24  
Amir Raj, Computer Science PhD, Comprehensive Exam, AY24  
Raihan Islam Arnob, Computer Science PhD, Proposal Defense, AY24  
Navid Rajabi, Computer Science PhD, Thesis Defense, AY24  
Michael Crawshaw, Computer Science PhD, Proposal Defense, AY24  
Abhishek Paudel, Computer Science PhD, Proposal Defense, AY24  
Hoang-Dung Bui, Computer Science PhD, Proposal Defense, AY24  
Mohamed Aghzal, Computer Science PhD, Comprehensive Exam, AY24  
Minh Duc Nguyen, Computer Science PhD, Comprehensive Exam, AY24  
Dibyendu Das, Computer Science PhD, Comprehensive Exam, AY24  
Arnab Debnath, Computer Science PhD, Proposal Defense, AY24  
Joseph Prince Matthew, ECE PhD, PhD Defense, AY24  
Roshan Dhakal, Computer Science PhD, Thesis Proposal, AY23  
Changyang Li, Computer Science PhD, Thesis Defense, AY23  
Kevin Murray, Computer Science PhD, Thesis Defense, AY23  
Navid Rajabi, Computer Science PhD, Thesis Proposal, AY23  
Anuj Pokhrel, Computer Science PhD, Comprehensive Exam, AY23  
Gaurab Pokharel, Computer Science PhD, Comprehensive Exam, AY23  
Abhish Khanal, Computer Science PhD, Comprehensive Exam, AY23  
Yimeng Lee, Computer Science PhD, Thesis Defense, AY23  
Kyle L. Jackson, Computer Science PhD, Thesis Defense, AY23  
Yimeng Lee, Computer Science PhD, Thesis Proposal, AY23  
Kyle L. Jackson, Computer Science PhD, Thesis Proposal, AY23  
Joseph Prince Matthew, ECE PhD, PhD Proposal Defense, AY23  
Md. Ridwan Hossain Talukder, Computer Science PhD, Comprehensive Exam, AY23  
Raihan Islam Arnob, Computer Science PhD, Comprehensive Exam, AY23  
Dzung Bui, Computer Science PhD, Comprehensive Exam, AY23

Philip Baldoni, Computer Science PhD, Comprehensive Exam, AY23  
Kyle L. Jackson, Computer Science PhD, Pre-Defense, AY23  
Yimeng Li, PhD, Comprehensive Exam Committee, AY22  
Roshan Dhakal, PhD, Comprehensive Exam Committee, AY22  
Abhishek Paudel, PhD, Comprehensive Exam Committee, AY22  
Arnab Debnath, PhD, Comprehensive Exam Committee, AY22  
Yimeng Li, PhD, Dissertation Proposal Committee, AY22  
Michael Crawshaw, PhD, Comprehensive Exam Committee, AY21

## OTHER MASON SERVICE

**Director/Co-Director: Autonomous Robotics Lab** Fall 2022–Present. In my role as lab director, I am an ambassador of robotics research and regularly give tours for interested students or visitors.

**Served on College-Level AI Working Group** Served as AI/Robotics expert to discuss integration of generative AI into Mason’s research and curriculum. Fall 2024

**Mentored 3 High-School Summer Interns** Students hosted in the RAIL Group, recruited via the GMU ASSIP program. Summer 2025

**Mentored 4 High-School Summer Interns** Students hosted in the RAIL Group, recruited via the GMU ASSIP program. Summer 2024

**Reviewed 1 application for IDIA Faculty Fellowship** Fall 2023

**Reviewed 2 applications for IDIA Pre-Doc Fellowship** Fall 2023

**Mentored 4 High-School Summer Interns** Students hosted in the RAIL Group, recruited via the GMU ASSIP program. Summer 2023

**Advisor for MS/ECE Capstone Project** Served as faculty-advisor a large Capstone project, a requirement for MS/ECE undergraduates, consisting of a 5 student sub-team (specific to the Vision sub-team, which I co-led) and provided guidance and instruction for the large ( 15 student) full team. AY2022

**Mentored 3 High-School Summer Interns** Students hosted in the RAIL Group, recruited via the GMU ASSIP program., Summer 2022

## EXTERNAL PHD/MS STUDENT COMMITTEES

External Reader + PhD Defense Service, Christopher Bradley, Massachusetts Institute of Technology  
External Reader + PhD Defense Service, W. Nicholas Greene, Massachusetts Institute of Technology  
Thesis Committee Member + PhD Defense Service, Raj Korpan, City University of New York

## EXTERNAL SERVICE

**IEEE Big Data Workshop on Multimodal AI 2025** Program Committee Member & Reviewer, Dec 2025

**Co-Organizer, Learning Effective Abstractions for Planning Workshop at CoRL** Co-Organized Workshop at the Conference at Robot Learning, October 2025, Co-organized with Naman Shah, Tom Silver, Utkarsh Mishra, Luci Shi, Beomjoon Kim, and Georgia Chalvatzaki.

**Program Committee Member, AAMAS 2026** Reviewed 8 papers.

**Associate Editor, ICRA 2026** Assigned 10 papers.

**Reviewer (2025)** Reviewer for RSS, IROS, T-ASE, CASE, CoRL, ICRA

**IEEE Big Data Workshop on Multimodal AI 2024** Program Committee Member & Reviewer, Dec 2024

**IROS Session Co-Chair**, Oct 2024

**Mentored 4 High-School AI Final Projects** Students were from the Ideaventions Academy. June 2024

**Meta-Reviewer for RSS Pioneers** Managed 4 applications

**Associate Editor, ICRA 2025** Assigned 7 papers.

**Reviewer (2024)** Reviewer for RSS, ICSR, T-ASE, RA-L, ICRA

**IEEE Big Data Workshop on Multimodal AI 2023** Program Committee Member & Reviewer, Dec 2023

**Reviewer (2023)** Reviewer for ICLR, CoRL, ICRA, RSS Pioneers

**Contributed to the National Robotics Roadmap** Attended a workshop at Penn to contribute to the next National Robotics Roadmap. Sep 2023

**Mentored 2 High-School AI Final Projects** Students were from the Ideaventions Academy. May 2023

**IROS Session Co-Chair**, Oct 2023

**Reviewer (2022)** Reviewer for ICLR, IROS, CoRL, IEEE Intelligent Systems

**NSF Review Panelist** Served on an NSF review panel for the CISE directorate.

**Conference on Robot Learning** Co-Organized Workshop, Dec 2022 Title: *Learning, Perception, and Abstraction for Long-Horizon Planning*, Co-organized with Rohan Chitnis, Yezhou Yang, Tom Silver, and Jana Košecká

**IEEE Big Data Workshop on Multimodal AI 2022** Program Committee Member & Reviewer, Dec 2022

**Reviewer (2021)** Reviewer for CoRL, NeurIPS, ICLR, RA-L

**ICRA Session Co-Chair**, May 2021

**Reviewer (2020)** Reviewer for top conferences: ICLR, CoRL, ICRA, RSS

**MIT EECS Communication Lab** Communication Advisor, Aug 2016 – Dec 2019. Coached over 100 MIT students in 1-on-1 sessions to improve their technical communication.

**MIT Resources for Easing Friction and Stress** Peer Counselor, Jan 2017 – Dec 2019. Counseled students across the EECS department on mental wellness and managing stress.

**Princeton CITP Workshops on AI and Ethics** Invitee, Mar 2018 & Nov 2018. Invited as a technical expert at the intersection of AI, Machine Learning, and Robotics to participate in two workshops on AI and Ethics co-organized by the Princeton University Center for Information Technology Policy.

**MIT EECS Visiting Committee** Graduate Student Body Co-organizer, Feb 2017. Prepared report and made recommendations for how to improve student wellness and advising quality to panel of experts, reflecting two months of surveys, interviews, and town-hall meetings.

**MIT EECS Graduate Student Association** Board Member, Dec 2015 – Dec 2016. Elected Communications Vice President by peers for organization representing 630 graduate students; Co-organized week-long orientation for 120 EECS graduate students.