

Anutam Srinivasan

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EDUCATION

Georgia Institute of Technology

Ph.D. in Robotics, President's Fellowship Awardee, GPA 4.00/4.00

Atlanta, GA

Aug. 2025 – Present

Ohio State University

BS in Electrical & Computer Engineering; Mathematics (double major), GPA 3.99/4.00

Columbus, OH

Aug. 2021 – May 2025

EXPERIENCE

Trustworthy Robotics Lab, Georgia Tech

Research Assistant

Aug. 2025 – Present

Atlanta, GA

Robust Planning Out-of-Distribution with Learned Dynamics, *PI: Prof. G. Chou*

Aug. 2025 - Present

- Developed a fast approach for robustly planning with learned dynamics despite model errors.
- Used Conformal Prediction (CP), an uncertainty quantification method that produces confidence sets to provide probabilistic bounds on model error.
- Leveraged System Level Synthesis, a control synthesis framework to account for model errors provided by CP.
- Empirically validated the framework using car and quadcopter dynamics models.

Autonomy & Navigation Technology Center

ORISE Research Intern, Air Force Institute of Technology (AFIT)

May 2023 – Aug. 2025

Wright Patterson Air Force Base, OH

Geomagnetic Diurnal Variation Prediction, *PI: Prof. A. Nielsen*

May 2023 - May 2024

- Developed novel algorithms to predict diurnal variations in the geomagnetic field to improve the viability of Crustal Magnetic Anomaly Navigation – a complementary navigation method for GPS-contested environments.
- Explored use of relevant machine learning models (kNN, Neural Nets) for this purpose.
- Designed a portable ground-station (hardware) for magnetic field data collection to integrate with the above work.

Aircraft Magnetic Noise Prediction, *PI: Prof. A. Nielsen*

June 2024 – Aug. 2025

- Developing a Physics-Informed time-series Machine Learning model that can predict the magnetic noise produced from an aircraft so it can be removed from sensor readings.
- Converted ~4400 raw avionics data features to a machine-learning friendly format.
- Leveraging Tolles-Lawson physics model as a basis for the model architecture.

CoSyNe Lab, Ohio State

Research Assistant

Aug. 2023 – Aug. 2025

Columbus, OH

Stealthy Data (audio) Exfiltration on Powerlines via Phone Charging Leakage, *PI: Prof. K. Athreya*

- Designed methods to identify power leakage patterns when a charging phone is actively used.
- Extracted and reconstructed relevant multi-modal signals to demonstrate plausible attack scenarios.
- Building the evaluation environment to evaluate various attack scenarios and compare them to baselines.

Data Mining Research Lab, Ohio State

Research Assistant

Nov. 2023 – Aug. 2025

Columbus, OH

Fairness Under Uncertainty for Graph Models, *PI: Dr. P. Maneriker & Dr. S. Parthasarathy*

- Utilizing Conformal Prediction (CP) – an uncertainty quantification method that produces confidence sets
- Proposed a key algorithm to directly leverage the CP framework and construct *fair* uncertainty sets.
- Demonstrated and explored the generality of the *fair* CP framework.
- Implemented various CP algorithms for a benchmarking study on Graph Conformal Prediction.

TEACHING

Ohio State, Fundamentals of Engineering Honors Program

Undergraduate Teaching Assistant

Aug. 2022 – May 2025

Columbus, OH

ENGR 1281.01H - Fundamentals of Engineering Honors: Intro to Matlab & C

Fall 2022, 2024, 2025

ENGR 1282.02H - Fundamentals of Engineering Honors: Robot Project

Spring 2023, 2025

Georgia Tech, Department of Electrical & Computer Engineering

Graduate Teaching Assistant

Aug. 2025 – Present

Atlanta, GA

ECE 2025 - Intro to Signal Processing

Fall 2025

ECE 3084 - Signals and Systems

Spring 2026

PROJECTS

- Fundamentals of Engineering Honors Robot Project Spring 2022
- Designed a robot with a four-person team to autonomously complete a specified course.
 - Utilized CAD and C++ to create our robot and implemented a PID controller to improve our performance.
 - Received a design award for our robust construction.
- Real Time Robotics Systems Final Project Spring 2024
- Considered Multi-Agent path planning algorithms for constrained settings (E.g. warehouses).
 - Performed literature review to identify and adapt existing path planning algorithms for our setting.
 - Ran experiments, to identify pros and cons of methods (including tree and graph-based methods).
- X-Ray Communication Capstone Project, Advised by Dr. C. Ball, ElectroScience Lab Fall 2024 - Spring 2025
- Building a hardware-software testbed for X-Ray communications.
 - Exploring techniques in visual communications systems to build a fast and reliable testbed.
 - Learning about various communication and encoding protocols to minimize bit-error rate.

PUBLICATIONS AND PRESENTATIONS

- [1] **Conference Paper.** A. Vadlamani*, A. Srinivasan*, P. Maneriker, A. Payani, S. Parthasarathy. “A Generic Framework for Conformal Fairness”, *Thirteenth International Conference on Learning Representations* (2025). (*Equal Contribution).
- [2] **Journal Paper.** P. Maneriker*, A. Vadlamani*, A. Srinivasan, Y. He, A. Payani, S. Parthasarathy. “Conformal Prediction: A Theoretical Note and Benchmarking Transductive Node Classification in Graphs”, *Transactions in Machine Learning Research* (2025).
- [3] **Preprint.** A. Srinivasan*, A. Vadlamani*, A. Meghrazi, S. Parthasarathy. “FedCF: Fair Federated Conformal Prediction”, arXiv preprint arXiv:2509.22907 (2025). (under review, *Equal Contribution)
- [4] **Preprint.** A. Srinivasan, A. Nielsen. “Extending Temporal Disturbance Estimations For Magnetic Anomaly Navigation and Mapping” arXiv preprint arXiv:2510.15113 (2025). (under review)
- [5] **Conference Paper.** A. Srinivasan, G. Chou. “Safety Beyond the Training Data: Robust Out-of-Distribution MPC via Conformalized System Level Synthesis”, *Learning for Dynamics and Control* (2026). (to appear)
- [6] **Conference Presentation.** A. Srinivasan, A. Nielsen. “Temporal Anomaly Corrections for Magnetic Anomaly Navigation”, Presented at Joint Navigational Conference, Kentucky, (2024).
- [7] **Conference Presentation.** A. Nielsen, L. Bergeron, A. Srinivasan. “Extended Geomagnetic Ground Reference Station Model and Noise Characterization”, American Geophysical Union Fall Conference, California, (2023).

INVITED TALKS

- Temporal Anomaly Corrections For Magnetic Anomaly Navigation (MagNav), at NOAA June 2024
- Invited to present our work to a leading MagNav group at the National Oceanic and Atmospheric Administration.

AWARDS

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| President’s Fellowship, Georgia Tech | Aug 2025 – Present |
| Summa Cum Laude, > 3.9 GPA | May 2025 |
| Dean’s List (all undergraduate semesters) | Aug. 2021 – May 2025 |
| Maximus Scholarship (Merit-Based Scholarship) | Aug. 2021 – May 2025 |
| Scholarship Award for Robot Design, by Aptiv | Aug. 2022 – Dec. 2022 |

EXTRACURRICULARS

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| Ohio State University Tennis Club | Aug. 2021 – May. 2023 |
| Code 4 Community (Project Lead: Aug 2023 – May 2024) | Aug. 2021 – May. 2024 |
| Ohio State University Squash Club (Treasurer: May 2024 – May 2025) | Aug. 2023 – May 2025 |

COURSES & SKILLS

Relevant Coursework: Real-time Robotics, Intro to Machine Learning, Mathematical Stats and Probability, Computer Architecture, Intro to Real Analysis (1 and 2), Abstract Algebra (1 and 2), Partial Differential Equations, Math Methods in Relativity Theory (Applied Differential Geometry), Intro to Wireless Communications, Linear Systems & Controls, Intro to Artificial Intelligence. Robotics Research*, Deep Reinforcement Learning*. *=In Progress

Skills: Python (Scikit Learn, PyTorch), MATLAB, Java, C, C++, Git/GitLab