
OBJECTIVE

Applied AI researcher with expertise in multimodal models, agentic systems, and embodied learning, focused on building and deploying real-world intelligent systems that solve complex, high-impact problems.

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA May 2021
MSc., Robotics Engineering (Multi-Agent Systems & Deep Learning)

Worcester Polytechnic Institute (WPI), Worcester, MA May 2015
BSc., Mechanical Engineering (minors: Aerospace, Electrical Engineering)

RESEARCH/INTERNSHIP/WORK EXPERIENCE

[JPMorgan Chase & Co.](#), New York, NY

AI Research Lead

Jan 2026 – present

Senior AI Researcher

May 2023 – Dec 2025

- **Applied AI research in financial domains:**

- **Few-shot learning for UI/web agents:** Led development of pipelines and fine-tuned agents that complete web-based tasks from a small number of user demonstrations.
- **Agentic QA and automatic workflow generation:** Designed and led end-to-end systems that extract data and construct multi-agent LLM-based pipelines for (1) question answering and (2) information retrieval over in-house data and SEC financial filings and contracts.
- **Multimodal learning agents:** Built and guided agentic and multi-agent methods to interpret visual and tabular elements in complex financial documents, enabling hierarchical VQA over dense slide decks.
- **Continual learning:** Developed multi-agent systems with continual adaptation by reflecting on historical execution traces and incorporating expert human feedback.

- **Applied AI research in robotics:**

- **Mobile robots for task automation:** Led development of the software stack for embodied AI agents that interact with humans and other agents, navigate office environments, and support tasks such as deliveries, monitoring, and document transport.

[Fidelity AI Center of Excellence](#), Boston, MA

Data Scientist/ Machine Learning Engineer 5

Aug 2021 – May 2023

- **Research to Production:**

- **Synthetic data generation:** Built a Sim2Real pipeline to generate documents incorporating realistic noise (e.g., lighting variation, paper artifacts).
- **Document automation:** Designed and refined models to process multipage scanned documents, performing information localization, extraction, and classification.
- **Speech recognition:** Developed robust models for speech-to-text transcription in acoustically challenging office environments.

[Novel Engineering for Swarm Technologies \(NEST\) Lab](#), WPI, Worcester, MA

Graduate Student Researcher

Sep 2016 – June 2021

- Novel research into decentralized collective spatial perception & decision-making of environmental features using an anonymous swarm of robots given real-world constraints such as memory limitations, sensing noise as well as adversarial/malicious agents. [Youtube Link](#).
- Versions of statistically significant algorithms obtained by running & analyzing gigabytes of experiment data using a compute cluster.
- Published work on data-driven (continual) decentralized federated learning in a multi-robot system applied to trajectory prediction.

[NASA/ SETI Institute Frontier Development Lab](#), Mountain View, CA

Machine Learning Researcher

June 2020 – Sep 2020

- Implemented a representation encoder using self-supervision in petabyte-scale remote sensing imagery to discover information about interesting / anomalous phenomena & to augment multispectral data. [Youtube Link](#)

[Honda Research Institute](#), San Jose, CA

Strategic Research Intern

Jan 2020 – Sep 2020

- Researched explainable AI & interpretable relation modeling with graph neural networks in the application of driving style characterization to obtain semantic relationships between agents and recreate and predict behavior.

[WPI & Army Research Laboratory](#), WPI, Worcester, MA

Graduate Student Intern

Aug 2019 – Jan 2020

- Implemented a full stack deep learning pipeline for collecting, analyzing & visualizing corrosion experiments for DoD sustainability using a small real-world dataset.

[DARPA Warfighter Analytics for Smartphone Healthcare](#), WPI, Worcester, MA

Research Programmer

Nov 2018 – Jan 2020

- Reviewed ‘in-the-wild’ datasets collected using smartphones & implemented/analyzed state-of-the-art networks used to classify day-to-day actions (multi-label action/context classification).
- Worked on domain adaptation from a scripted study to clean temporal skew present in the original dataset & used additional feature-engineering, hierarchical networks, image encoding etc. for classification.
- End-goal of creating a deep learning pipeline that can manipulate/engineer features obtained using a smartphone sensor suite to detect anomalous behavior stemming from traumatic brain injuries in soldiers.

PUBLICATIONS

Journals

- [1] Chen Tang*, **Nishan Srishankar***, Sujitha Martin, Masayoshi Tomizuka. Grounded Relational Inference: Domain Knowledge Driven Explainable Autonomous Driving, *IEEE Transactions on Intelligent Transportation Systems* 2024

Conferences

- [2] Rachneet Kaur, **Nishan Srishankar**, Zhen Zeng, Sumitra Ganesh, Manuela Veloso. ChartAgent: A Multimodal Agent for Complex Visual Question Answering in Charts, (under review) 2025
- [3] Gaurav Verma, Rachneet Kaur, **Nishan Srishankar**, Zhen Zeng, Tucker Balch, Manuela Veloso. AdaptAgent: Adapting Multimodal Web Agents with Few-Shot Learning from Human Demonstrations, *ACL* 2025
- [4] William Watson, Nicole Cho, **Nishan Srishankar**. Is There No Such Thing as a Bad Question? H4R: HalluciBot For Ratiocination, Rewriting, Ranking, and Routing, *AAAI* 2025
- [5] William Watson*, Nicole Cho*, **Nishan Srishankar***, Zhen Zeng, Lucas Cecchi, Daniel Scott, Suchetha Siddagangappa, Rachneet Kaur, Tucker Balch, Manuela Veloso. LAW: Legal Agentic Workflows for Custody and Fund Services Contracts, *COLING* 2025
- [6] Nicole Cho, **Nishan Srishankar**, Lucas Cecchi, William Watson. FISHNET: Financial Intelligence from Subquerying, Harmonizing, Neural-Conditioning, Expert Swarms, and Task Planning, *ICAIF* 2024
- [7] Nathalie Majcherczyk, **Nishan Srishankar**, Carlo Pinciroli. Flow-FL: Data-Driven Federated Learning for Spatio-Temporal Predictions in Multi-Robot Systems, *ICRA* 2020
- [8] Megs Seeley*, Francesco Civilini*, Satyarth Praveen*, **Nishan Srishankar***, Anirudh Koul, Anamaria Berea, Hesham Mohamed El-Askary. Knowledge Discovery Framework: Deep Learning Applications for Remote Sensing, *AGU* 2020
- [9] Adnan Munawar, **Nishan Srishankar**, Loris Fichera, Gregory Fischer. Multi-Manual Grasping and Interaction in Real-Time Dynamic Simulations using a Penalty Based Approach, *ICRA* 2020
- [10] Adnan Munawar, **Nishan Srishankar**, Gregory Fischer. An Open-Source Framework for Rapid Development of Interactive Soft-Body Simulations for Real-Time Training, *ICRA* 2020

Workshops

- [11] Rachneet Kaur, **Nishan Srishankar**, Zhen Zeng, Sumitra Ganesh, Manuela Veloso. ChartAgent: A Multimodal Agent for Complex Visual Question Answering in Charts, NeurIPS Multimodal Algorithmic Reasoning (MAR) 2025
- [12] Gaurav Verma, Rachneet Kaur, **Nishan Srishankar**, Zhen Zeng, Tucker Balch, Manuela Veloso. AdaptAgent: Adapting Multimodal Web Agents with Few-Shot Learning from Human Demonstrations, NeurIPS Adaptive Foundation Models (AFM) 2024
- [13] Nikhil Maddikunta*, Huijun Zhao*, Sumit Keswani*, Alfy Samuel*, Fu-Ming Guo*, **Nishan Srishankar***, Vishwa Pardeshi*, Austin Huang*. Sim2Real Docs: Domain Randomization for documents in natural scenes using ray-traced rendering, NeurIPS Data Centric AI 2021
- [14] Chen Tang, **Nishan Srishankar**, Sujitha Martin, Masayoshi Tomizuka. Towards Explainable Autonomous Driving with Grounded Interpretable Relational Inference, NeurIPS Machine Learning for Autonomous Driving (ML4AD) 2020

White Papers

- [15] Indhu Varatharajan*, Valentin Bickel*, Daniel Angerhausen*, Eleni Antoniadou*, Shashwat Shukla*, Abhisek Maiti*, Ross Potter*, **Nishan Srishankar***, Frank Soboczinski*, Carl Shneider*, Michelle Faragalli*, Mario D'Amore*. Artificial Intelligence for the Advancement of Lunar and Planetary Science and Exploration, Planetary Science and Astrobiology Decadal Survey 2023-2032

PATENTS

- [1] Annapoorani Lakshmi Narayanan, Kelly Patel, Nishan Srishankar, Sumitra Ganesh, Thomas Cook, Zhen Zeng. Method and System for Continual Learning of Domain Knowledge from Human Feedback in Text to SQL. In process.
- [2] Nishan Srishankar, Rachneet Kaur, Sumitra Ganesh, Yiqiao Jin, Zhen Zeng. Method and System for Developing a Hierarchical Agentic Framework for Multi-Page Slide Deck Understanding. Filed December 2025.
- [3] Manuela Veloso, Nishan Srishankar, Rachneet Kaur, Sumitra Ganesh, Zhen Zeng. Method and System for Developing Multi-Modal Reasoning Agents for Complex Chart Understanding. Filed October 2025.
- [4] Gaurav Verma, Manuela Veloso, Nishan Srishankar, Rachneet Kaur, Tucker Richard Balch, Zhen Zeng. Method and System for Generating a Multi-Modal Large Language Model Web Agent for Autonomous Execution of a Virtual Action. Filed April 2025.
- [5] Nicole Cho, Nishan Srishankar, William Watson. Method and System of Training an Encoder Classifier Model in Predicting Hallucination of a Machine Learning (ML) Model before a Generation of a Query. Filed August 2024.
- [6] Manuela Veloso, Nicole Cho, Nishan Srishankar, Tucker Richard Balch, William Watson. Method and system for information extraction and aggregation. Filed August 2024.
- [7] Manuela Veloso, Nicole Cho, Nishan Srishankar, William Watson. Method and System for Improving Code Generation Quality of Large Language Model through Code Guardrails. Filed March 2024.

SKILLS

ML/AI: Distributed Systems, Optimal Control, Deep Learning (NLP, Computer Vision, Time-series, Unsupervised/Semi-supervised/Self-supervised/ multimodal learning, Graph models, Large Language/Multimodal models, Sim2Real, Generative AI), Continual learning, Multi-agent/ agentic systems, RAG, Deep Reinforcement Learning

Platforms: High-Performance Computing/Slurm, Google Cloud Platform, AWS (EC2, ECS, Sagemaker, OpenSearch)

Programming Languages: Python, C++, Matlab, Julia, R

Frameworks and Software: ROS, Gazebo, OpenCV, Tensorflow, PyTorch (Lightning), HuggingFace, Kubernetes, Docker, Terraform, LangChain/LangGraph, AutoGen, Google Agent Development Kit (ADK)

AWARDS & SERVICES

- **Program Committee / Reviewer:** CDC17, AAMAS{19, 20}, AAAI{21, 24}, NeuRIPS{20, 21, 22, 23}, IEEE-RAL{20, 21, 22}, ICLR{21, 22}, IROS22, ACML22, ICRA23, ICAIF23, AABI24
- **ICRA 2016 Formal Methods in Robotics Scaling Chain of Integrators Winning team.** Worked on the Scaling Chains of Integrators domain. Developed a control scheme using ROS/Python with potential fields, TSP optimization, and a random walk to avoid convex polytope obstacles while optimally reaching goals. Solution created could be arbitrarily scaled to infinite dimensions.

TEACHING EXPERIENCE

Graduate Tutor/Grader

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|---|-------------|
| • Artificial Intelligence | Fall 2018 |
| • Introduction to Communication & Networks | Spring 2018 |
| • Analysis of Probabilistic Signals/Systems | Fall 2017 |
| • Principles of Communication Systems | Fall 2017 |
| • Optimal Control | Spring 2017 |