

OBJECTIVE

Seeking position in Computer Science/ Robotics to apply skills gained through previous work experience to real-world challenges

EDUCATION

Non-Degree courses	May 2022
Reinforcement Learning (P), Multi-task and Meta-learning, Introduction to Alignment	
Worcester Polytechnic Institute (WPI) , Worcester, MA	May 2021
MSc., Robotics Engineering and Electrical & Computer Engineering (swarm robotics & DL)	
Worcester Polytechnic Institute (WPI) , Worcester, MA	May 2015
BSc., Mechanical Engineering (minors: Aerospace, Electrical Engineering)	

RESEARCH/INTERNSHIP/WORK EXPERIENCE

Senior AI Researcher May 2023 - present
[JPMorgan Chase & Co.](#), New York, NY

- Applied AI research focused on financial (automatic workflow generation, few shot learning of UI/web agents, agentic scale analysis of financial filings, multimodal learning) and robotics (autonomous mobile robots for assistive tasks in the office) domains.

Data Scientist/ Machine Learning Engineer 5 Aug 2021 - May 2023
[Fidelity AI Center of Excellence](#), Boston, MA

- Research to Production- Applied research such as synthetic data generation pipelines, multimodal and multitask transformers for computer vision in document automation, and automatic speech recognition.

Graduate Student Researcher Sep 2016 - June 2021
[Novel Engineering for Swarm Technologies \(NEST\) Lab](#), WPI, Worcester, MA

- 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 decentralized federated learning in a multi-robot system applied to trajectory prediction.

Machine Learning Researcher June 2020 - Sep 2020
[NASA/ SETI Institute Frontier Development Lab](#), Mountain View, CA

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

Strategic Research Intern Jan 2020 - Sep 2020
[Honda Research Institute](#), San Jose, CA

- Researched explainable AI & interpretable relation modeling with graph neural networks in the application of driving style characterization.

Graduate Student Intern Aug 2019 - Jan 2020
[WPI & Army Research Laboratory](#), WPI, Worcester, MA

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

Research Programmer Nov 2018 - Jan 2020
[DARPA Warfighter Analytics for Smartphone Healthcare](#), WPI, Worcester, MA

- Reviewed ‘in-the-wild’ datasets collected using smartphones & implemented/analyzed state-of-the-art networks used to classify day-to-day actions (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 learning.
- 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] 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
- [3] 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
- [4] Nicole Cho, **Nishan Srishankar**, Lucas Cecchi, William Watson. FISHNET: Financial Intelligence from Subquerying, Harmonizing, Neural-Conditioning, Expert Swarms, and Task Planning, ICAIF 2024
- [5] Nathalie Majcherczyk, **Nishan Srishankar**, Carlo Pinciroli. Flow-FL: Data-Driven Federated Learning for Spatio-Temporal Predictions in Multi-Robot Systems, ICRA 2020
- [6] 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
- [7] 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
- [8] 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

- [9] 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
- [10] 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
- [11] 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

- [12] Indhu Varatharajan*, Valentin Bickel*, Daniel Angerhausen*, Eleni Antoniadou*, Shashwat Shukla*, Abhisek Maiti*, Ross Potter*, **Nishan Srishankar***, Frank Soboczenski*, 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] Nishan Srishankar, William Watson, Nicole Cho, Manuela Veloso. Method and system for improving code generation quality of Large Language Models through code guardrails. Patent filed.

- [2] Nicole Cho, Nishan Srishankar, Manuela Veloso. Method and system for information extraction and aggregation. Patent filed.
- [3] William Watson, Nicole Cho, Nishan Srishankar, Tucker Balch, Manuela Veloso. Method and system of training an encoder classifier model in predicting hallucination of a machine learning (ML) model before a generation of a query. Patent filed.
- [4] Gaurav Verma, Rachneet Kaur, Nishan Srishankar, Zhen Zeng, Tucker Balch, Manuela Veloso. Method and system for adapting web agents to new tasks using few human demonstrations. Patent filed.

SKILLS

Engineering Techniques: Distributed Systems, Optimal Control, Deep Learning (Computer Vision, Time-series, Unsupervised/Semi-supervised/Self-supervised learning, Graph models, Large Language/Multimodal models, Sim2Real), 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, Keras, PyTorch (Lightning), HuggingFace, Kubernetes, Docker, Terraform, LangChain

AWARDS & SERVICES

- 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 reviewer
- ICRA 2016 Formal Methods in Robotics Scaling Chain of Integrators Winning team

TEACHING EXPERIENCE

Graduate Tutor/Grader

- 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