Jared Coleman

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EDUCATION

University of Southern California — Los Angeles, CA
Ph.D. in Computer Science; GPA: 4.0 — *Aug 2020 – May 2024*
  Dissertation: Dispersed Computing in Dynamic Environments
  Advisor: Bhaskar Krishnamachari

California State University, Long Beach — Long Beach, CA
Master of Science in Computer Science; GPA: 4.0 — *Aug 2018 – May 2020*
Bachelor of Science in Computer Science; GPA: 3.6 — *Aug 2013 – May 2018*
  Thesis: Minimizing The Maximum Distance Traveled To Form Patterns With Systems of Mobile Robots
  Advisor: Oscar Morales-Ponce

RESEARCH INTERESTS

Cooperative multi-agent systems, distributed computing, decentralized computing, online algorithms, distributed ledger technology, internet of things (IoT), artificial intelligence (AI), and large language models (LLMs) for endangered language revitalization.

EXPERIENCE

Coinbase — Remote
Consultant - Machine Learning Engineer — *Jan 2024 – Present*

Loyola Marymount University — Los Angeles, CA
Assistant Professor — *Aug 2024 – Present*

The Aerospace Corporation — El Segundo, CA
Member of the Technical Staff — *Mar 2020 – Jun 2024*
Associate Member of the Technical Staff — *Sep 2018 – Mar 2020*
Intern — *Jan 2018 – Aug 2018*
  - Designed software and algorithms for rapidly developing scalable, modular, and efficient analyses for launch vehicle verification in simulation, day-of-launch, and post-flight environments.

CSULB Research Foundation — Long Beach, CA
Student Research Assistant — *Mar 2017 – May 2018*
  - Developed software and simulations for systems of cooperative robots.

PUBLICATIONS

[19] **Evaluating Scheduling Algorithms for Adaptive Orchestration in Federated Tactical Edge Cloud Environments**
Alessandro Amato, Harrie Bastiaansen, Jared Coleman, Willem Datema, Mattia Fogli, Johan van der Geest, Bhaskar Krishnamachari, Thomas Kudla, Pablo Sanchez, Niranjan Suri
To Appear at ICMCIS 2025 — International Conference on Military Communications and Information Systems

[18] **Multimodal Search on a Line**
Jared Coleman, Dmitry Ivanov, Evangelos Kranakis, Danny Krizanc, Oscar Morales-Ponce
To Appear at SIROCCO 2025 — International Colloquium on Structural Information and Communication Complexity

[17] **PISA: An Adversarial Approach To Comparing Task Graph Scheduling Algorithms**
Jared Coleman, Bhaskar Krishnamachari
To Appear at IPDPS 2025 - The 39th International Parallel and Distributed Processing Symposium

[16] **LLM-Assisted Rule Based Machine Translation for Low/No-Resource Languages**
Jared Coleman, Bhaskar Krishnamachari, Khalil Iskarous, Ruben Rosales
AmericasNLP @ NAACL 2024 - 4th Workshop on NLP for Indigenous Languages of the Americas

[15] **Linear Search for an Escaping Target with Unknown Speed**
Jared Coleman, Dmitry Ivanov, Evangelos Kranakis, Danny Krizanc, Oscar Morales-Ponce
IWOCA 2024 — 35th International Workshop on Combinatorial Algorithms

[14] **Online Allocation of Sensing and Computation in Large Graphs**
Xinlin Li, Merve Karakas, Osama A. Hanna, Mehrdad Kiamari, Jared Coleman, Christina Fragouli, Bhaskar Krishnamachari, Gunjan Verma
IEEE CIC 2023 — International Conference on Collaboration and Internet Computing

[13] **DARSAN: A Decentralized Review System Suitable for NFT Marketplaces**
Sulyab Thottungal Valapu, Tamoghna Sarkar, Jared Ray Coleman, Anusha Avyukt, Hugo Embrechts, Dimitri Torfs, Michele Minelli, Bhaskar Krishnamachari
ICBC 2023 — International Conference on Blockchain

[12] **Search and Rescue on the Line**
Jared Coleman, Lorand Cheng, Bhaskar Krishnamachari
SIROCCO 2023 — International Colloquium on Structural Information and Communication Complexity

[11] **PhD Forum Abstract: Cooperative Problem-Solving with Systems of Constrained Mobile Agents**
Jared Ray Coleman
IPSN 2023 — International Conference on Information Processing in Sensor Networks

[10] **Graph Convolutional Network-based Scheduler for Distributing Computation in the IoRT**
Jared Coleman, Mehrdad Kiamari, Lillian Clark, Daniel D'Souza, Bhaskar Krishnamachari
MILCOM 2023 WS-7 — Workshop On The Internet Of Things For Adversarial Environments

[9] **Delivery to Safety with Two Cooperating Robots**
Jared Coleman, Evangelos Kranakis, Danny Krizanc, Oscar Morales-Ponce
SOFSEM 2023 — International Conference on Current Trends in Theory and Practice of Computer Science

[8] **The Snow Plow Problem: Perpetual Maintenance by Mobile Agents on the Line**
Jared Coleman, Oscar Morales-Ponce
ICDCN 2023 — International Conference on Distributed Computing and Networking

[7] **Line Search for an Oblivious Moving Target**
Jared Coleman, Evangelos Kranakis, Danny Krizanc, Oscar Morales-Ponce
OPODIS 2022 — International Conference on Principles of Distributed Systems

[6] **Multi-Objective Network Synthesis for Dispersed Computing in Tactical Environments**
Jared Coleman, Eugenio Grippo, Bhaskar Krishnamachari, Gunjan Verma
SPIE Defense + Commercial Sensing 2022

[5] **Network Synthesis for Tactical Environments: Scenario, Challenges, and Opportunities**
Tzanis Anevlavis, Jonathan Bunton, Jared Coleman, Mine Dogan, Eugenio Grippo, Abel Souza, Christina Fragouli, Bhaskar Krishnamachari, Matthew Maness, Karl Olson, Prashant Shenoy, Paulo Tabuada, Gunjan Verma
SPIE Defense + Commercial Sensing 2022

[4] **Robotic Sorting on the Grid**
Jared Coleman, Oscar Morales-Ponce
ICDCN 2022 — 23rd International Conference on Distributed Computing and Networking

[3] **Message Delivery in the Plane by Robots with Different Speeds**
Jared Coleman, Evangelos Kranakis, Oscar Morales-Ponce, Danny Krizanc
SSS 2021 — 23rd International Symposium on Stabilization, Safety, and Security of Distributed Systems

[2] **The Pony Express Communication Problem**
Jared Coleman, Evangelos Kranakis, Oscar Morales-Ponce, Danny Krizanc
IWOCA 2021 — 32nd International Workshop on Combinatorial Algorithms

[1] **Minimizing The Maximum Distance Traveled To Form Patterns With Systems of Mobile Robots**
Jared Coleman, Evangelos Kranakis, Oscar Morales-Ponce, Jorge Urrutia, Birgit Vogtenhuber
CCCG 2020, 32nd Canadian Conference on Computational Geometry, August 5-7, 2020