
EDUCATION

University of Southern California*Ph.D. in Computer Science; GPA: 4.0*

Los Angeles, CA

Aug 2020 – Present

Dissertation: Dispersed Computing in Dynamic Environments

Advisor: Bhaskar Krishnamachari

California State University, Long Beach*Master of Science in Computer Science; GPA: 4.0*

Long Beach, CA

*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

Distributed computing, online algorithms, edge computing, internet of things (IoT), machine learning (ML), artificial intelligence (AI), blockchain, and cooperative mobile agents.

EXPERIENCE

The Aerospace Corporation*Member of the Technical Staff**Associate Member of the Technical Staff**Intern*

El Segundo, CA

*Mar 2020 – Present**Sep 2018 – Mar 2020**Jan 2018 – Aug 2018*

- Design 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*Student Research Assistant*

Long Beach, CA

Mar 2017 – May 2018

- Developed software and simulations for systems of cooperative robots.

Big Pine Paiute Tribe of the Owens Valley*IT Intern*

Big Pine, CA

May 2014 – Aug 2014

- Organized computer skills workshops for high school students in tribal work-experience program
- Developed membership management software for the tribal wellness center

TEACHING EXPERIENCE

Distributed Systems & the Internet of Things*Teaching Assistant*

Los Angeles, CA

*Spring 2023***Principles of Software Engineering***Teaching Assistant*

Los Angeles, CA

*Fall 2020***Organization of Programming Languages***Teaching Assistant*

Long Beach, CA

*Spring 2020***Object-Oriented Application Development***Teaching Assistant*

Long Beach, CA

*Spring 2020***Speaking***English Teacher*

Itajubá, MG, Brazil

2016

MENTORSHIP

Alex Sotiropoulos (Masters), Linus Lei (Undergrad)

Crowdsourcing LLM Fine-Tuning

2023

Eric Cheng, Helen Hu, Max Li, Melanie Xiao Xuan Toh, Sana Jain (Undergrads)

LanguageGames: open-source modular minigames for language education

Fall 2023

Eason Qin, Flora Jia, Lorena Yan (Undergrads)

AskANRG: LLM-powered chatbots tailored for research groups

Fall 2023

Dominick Hart (High School)

LLM-powered NPCs for language education through video games

Summer 2023

Ebrahim Hirani, Ravi Vivek Agrawal (Masters), Linus Lei, Sanjana Adapala (Undergrad)

Saamarth Seth (High School)

Python implementations of task graph scheduling algorithms

2023

Chely Fernandez (Undergrad)

Blockchain-secured Industrial IoT

2022

Lorand Cheng (Undergrad)

Search and Rescue on the Line

2021

Wanwiset Peerapatanapokin (Undergrad)

Blockchain-secured Industrial IoT

2020

HONORS & AWARDS

Cobell Scholar

The Cobell Scholarship

Awarded to high-achieving, community-involved Native college students with leadership experience.

2023-2024

CPS Rising Star

2023 CPS Rising Stars Workshop

This workshop aims to identify and mentor outstanding PhD students and postdocs who are interested in pursuing academic careers in Cyber-Physical Systems (CPS) related areas

2023

First-Place Winner

2nd Student Design Competition on Networked Computing on the Edge @ CPS IoT Week

Graph Convolutional Network-based Scheduler for Distributing Computation in the Internet of Robotic Things

2022

PUBLICATIONS

[1] 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

[2] 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

[3] Search and Rescue on the Line

Jared Coleman, Lorand Cheng, Bhaskar Krishnamachari

SIROCCO 2023 — International Colloquium on Structural Information and Communication Complexity

[4] 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

[5] 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

- [6] **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
- [7] **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
- [8] **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
- [9] **Multi-Objective Network Synthesis for Dispersed Computing in Tactical Environments**
Jared Coleman, Eugenio Grippio, Bhaskar Krishnamachari, Gunjan Verma
SPIE Defense + Commercial Sensing 2022
- [10] **Network Synthesis for Tactical Environments: Scenario, Challenges, and Opportunities**
Tzanis Anevlavis, Jonathan Bunton, Jared Coleman, Mine Dogan, Eugenio Grippio, Abel Souza, Christina Fragouli, Bhaskar Krishnamachari, Matthew Maness, Karl Olson, Prashant Shenoy, Paulo Tabuada, Gunjan Verma
SPIE Defense + Commercial Sensing 2022
- [11] **Robotic Sorting on the Grid**
Jared Coleman, Oscar Morales-Ponce
ICDCN 2022 — 23rd International Conference on Distributed Computing and Networking
- [12] **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
- [13] **The Pony Express Communication Problem**
Jared Coleman, Evangelos Kranakis, Oscar Morales-Ponce, Danny Krizanc
IWOCA 2021 — 32nd International Workshop on Combinatorial Algorithms
- [14] **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

PROJECTS

ChatLang (chatlang.net)

An LLM-powered role-playing bot with parallel tutor assistance

2023

Kubishi Sentences (sentences.kubishi.com)

An LLM-powered sentence builder/translator for the Owens Valley Paiute Language

2023

GCN-Turtlebot (github.com/ANRGUSC/gcnschedule-turtlenet)

GCN-based Scheduler for Distributing Computation in the Internet of Robotic Things

First-place winner: 2nd Student Design Competition on Networked Computing on the Edge at CPS IoT Week

2022

Secure IIoT

Using blockchain technology to secure industrial IoT systems

Industry Partner: Chevron

2021-2023

Kubishi (kubishi.com)

An online dictionary and encyclopedia for Owens Valley Paiute language and culture

2020

Aerocube @ The Beach

Distributed robotics systems for space — a proof of concept

Industry Partner: The Aerospace Corporation

2017