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**SUMMARY & SKILLS**

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I have a broad interest in computer science. My research interests include distributed computing, the internet of things (IoT), blockchain, mobile robotics, discrete mathematics, computational geometry, and game theory.

**Languages:** Python, C/C++, Java, JavaScript

**Technologies/Frameworks:** Docker, Tendermint, Git, React, Gitpod

**Graduate Courses:** Advanced Algorithm Design, Distributed Systems, Formal Verification, Randomized Algorithms, Theory of Computation, High-Performance Computing, Programming Languages, Operating Systems

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**EDUCATION**

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**University of Southern California**

*Ph.D. in Computer Science; GPA: 4.0*

Los Angeles, CA

*Aug 2020 – Present*

**California State University, Long Beach**

*Master of Science in Computer Science; GPA: 4.0*

*Bachelor of Science in Computer Science; GPA: 3.6*

Long Beach, CA

*Aug 2018 – May 2020*

*Aug 2013 – May 2018*

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**EXPERIENCE**

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**The Aerospace Corporation**

*Casual Member of the Technical Staff*

*Member of the Technical Staff*

*Associate Member of the Technical Staff*

*Intern*

El Segundo, CA

*Aug 2020 – Present*

*Mar 2020 – Aug 2020*

*Sep 2018 – Mar 2020*

*Jan 2018 – Aug 2018*

- Design software that helps Aerospace rapidly develop 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.

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**PUBLICATIONS**

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**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*

**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*

**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*

**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*

**Multi-Objective Network Synthesis for Dispersed Computing in Tactical Environments**

*Jared Coleman, Eugenio Grippo, Bhaskar Krishnamachari, Gunjan Verma*

*SPIE Defense + Commercial Sensing 2022*

## **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  
efense + Commercial Sensing 2022*

## **Robotic Sorting on the Grid**

*Jared Coleman, Oscar Morales-Ponce*

*ICDCN 2022 - 23rd International Conference on Distributed Computing and Networking*

## **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*

## **The Pony Express Communication Problem**

*Jared Coleman, Evangelos Kranakis, Oscar Morales-Ponce, Danny Krizanc*

*In Proceedings IWOCA 2021 - 32nd International Workshop on Combinatorial Algorithms*

## **Minimizing The Maximum Distance Traveled To Form Patterns With Systems of Mobile Robots**

*Jared Coleman, Evangelos Kranakis, Oscar Morales-Ponce, Jorge Urrutia, Birgit Vogtenhuber*

*In proceedings CCCG 2020, 32nd Canadian Conference on Computational Geometry, August 5-7, 2020*

## **PROJECTS**

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### **GCN-Turtlebot ([github.com/ANRGUSC/gcnschedule-turtlenet](https://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**

Autonomous Networks Research Group & Chevron

*Using blockchain technology to secure industrial IoT systems*

### **Kubishi ([kubishi.com](https://kubishi.com))**

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

2020

### **Aerocube @ The Beach**

CSULB & The Aerospace Corporation

*Distributed robotics systems for space - a proof of concept*

2017