Javier Nieto, Ph.D. Candidate

CONTACT INFORMATION

University of Illinois Urbana-Champaign
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RESEARCH INTERESTS

distributed algorithms, decentralized systems, applied cryptography

EDUCATION

University of Illinois Urbana-Champaign Aug 2023 - *Present*
Ph.D., Computer Science — GPA: 3.9/4.0

- **Advisor:** Ling Ren
- **Coursework:** Advanced Algorithms, Distributed Algorithms, Cryptography, Multi-Party Computation, Advanced Computer Security, Game Theory

University of Illinois Urbana-Champaign Aug 2020 - May 2023
B.S. Liberal Arts and Science Statistics & Computer Science — GPA 3.98/4.0

PUBLICATIONS

*DENOTES LEAD AUTHOR

Das S. , Camacho P. , Xiang Z. , **Nieto J.** , Bünz B. , and Ren L. . Threshold Signatures from Inner Product Argument: Succinct, Weighted, and Multi-threshold. In *Proceedings of the 2023 ACM SIGSAC Conference on Computer and Communications Security*, CCS '23, pages 356–370. Association for Computing Machinery, 2023.

Neu J. , **Nieto*** **J.** , and Ren L. . On the limits of consensus under dynamic availability and reconfiguration. *arXiv preprint arXiv:2510.03625*, 2025. *In submission.*

HONORS AND AWARDS

NSF GRFP Honorable Mention	2024
Support for Underrepresented Groups in Engineering (SURGE) Fellowship	2023
Graduate College Fellowship	2023
Sloan Scholar, Alfred P. Sloan Foundation's University Center of Exemplary Mentoring	2023

EXPERIENCE

Amazon Robotics Boulder, Colorado
Software Development Engineer Intern May - Aug 2022

- Transformed error data using Python and Pandas from testing autonomous mobile robots for Amazon fulfillment centers into useful diagnostics for teams
- Attributed errors automatically to responsible teams and combined duplicate errors for easier analysis
- Created dashboard using Dash to display test results and indicate flaky tests using transformed error data

AASI - Applied Aeronautical Systems INC. Remote
Consultant Aug 2021 - May 2022

- Built solutions for AROPS, Air Refueling Optimization and Planning System, for Rolls Royce where users can easily manage over 600 tanker aircrafts in the United States Air Force
- Managed web app built with React in TypeScript with team of 4 software engineers
- Solved flight path optimizations using graph search algorithms and DAFIF, Digital Aeronautical Flight Information File, data with over 10,000 airports and 500 refueling routes around the world in C++

DecisionQ Arlington, Virginia
Software Engineer Intern May 2021 - Jan 2022

- Developed concurrent processes in Go for extracting data of Ethereum-based blockchains efficiently
- Designed architecture for reading over 14 terabytes of data from blockchains into PostgreSQL databases
- Directed team of 3 software engineers on how to access the data for APIs using Flask in Python
- Data is used to display interactive graphs of blockchain data on web app built with React in JavaScript

Hackathons

WWT STEM Student Forum Feb - Mar 2020

- 6-week hackathon hosted by World Wide Technology in St. Louis
- Led Edwardsville High School team of 10 students to win $10,000 for 1st place
- Built web app using Bootstrap CSS, jQuery, and JavaScript to provide an online ordering system for the Tiger Den, a café ran by students with disabilities, in Edwardsville High School
- Provided systems for managing item stock, customer accounts, group ordering, vouchers, and more using the Django and Django-Oscar frameworks in Python

GlobalHack VII Oct 2018

- 48-hour international hackathon hosted by GlobalHack and Saint Louis University in St. Louis
- Led team of 3 to win $2,500 for 3rd place
- Analyzed and extracted US Census data to build interactive maps using the Google Maps API, HTML, and JavaScript to assist immigrants in finding suitable homes

Technical Skills

Programming Languages

- C/C++
- Golang
- JavaScript/TypeScript
- Python
- R
- Solidity
- SQL
- Java