

Joseph Oglio

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SUMMARY/OBJECTIVE

As I near the completion of a PhD in computer science from Kent State University, I am eager to transition into a full-time role where I can apply my extensive knowledge and skills to make meaningful contributions. While my academic pursuits may suggest a high level of education, I am deeply committed to embarking on a journey of continuous learning and professional development within a dynamic and forward-thinking company. I am enthusiastic about the opportunity to collaborate with like-minded individuals, tackle complex challenges, and contribute to the innovative solutions that drive progress in the field. I am confident that my passion for computer science and my dedication to excellence will enable me to thrive and grow alongside your esteemed organization in the long term.

WORK EXPERIENCE

Research/Teaching Assistant, Kent State University, November 2019 – Present

- Studied conventional and cutting-edge cryptocurrencies, blockchain technologies, and consensus algorithms, while developing several C++ based consensus algorithms and a testbed for simulating networks which resulted in the publication of several papers.
- Teach the lab portion of the courses CS1 and CS3 which go over basic and advanced concepts in the C++ programming language as well as modern design patterns.
- Onboard new students by providing mentorship, guiding them through their initial responsibilities within the team to collaborate in both research and teaching endeavors.

Intern, ZIN Technologies, Inc., June 2018 – November 2019

- Developed software-based engineering tools to convert the trajectories of satellites between reference frames and visualize the results.
- Tested the feasibility of using game engine physics engines for mission development.

Intern, NASA, January 2018 - June 2018

- Developed several Matlab based tools for computing the trajectories of satellites during orbit.
- Determined the intervals for communication for these satellites based on obstructions, viewing angles, and atmospheric conditions.
- Used the results of the above to create an “optimized” schedule to support mission success across many competing goals as well as software capable of visualizing the schedules.

PUBLICATIONS

- J. Oglio, K. Hood, G. Sharma, M. Nesterenko, "Consensus on an Unknown Torus with Dense Byzantine Faults" *International Conference on Networked Systems*, May 2023.
- J. Oglio, K Hood, M. Nesterenko, S. Tixeuil, “QUANTAS: Quantitative User-friendly Adaptable Networked Things Abstract Simulator”, *Workshop on Advanced tools, programming languages, and PLatforms for Implementing and Evaluating algorithms for Distributed systems*, July 2022
- J. Oglio, K. Hood, G. Sharma, M. Nesterenko “Byzantine Geoconsensus”, *International Conference on Networked Systems (NETYS)*, May 2021, best student paper award and “Brief Announcement: Byzantine Geoconsensus”, *Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS)*, pp. 199-204, November 2020
- K. Hood, J. Oglio, M. Nesterenko, G. Sharma “Partitionable Asynchronous Cryptocurrency Blockchain”, *IEEE International Conference on Blockchain and Cryptocurrency*, May 2021
- J. Oglio, and B. Welch. “Development of the ITACA Network Loading Analysis Tool's Scheduling Techniques”, *NASA Technical Reports Server (NTRS)*. June 2018.

EDUCATION

- Kent State University, Bachelors in Applied Mathematics. May 2020. "Partitionable Blockchain." *Electronic Thesis. Kent State University*, May 2020. GPA 3.7
- Kent State University, Masters in Computer Science. May 2023. GPA 3.9
- Kent State University, PhD in Computer Science. Expected Graduation Dec 2024. GPA 3.9

TECHNICAL EXPERIENCE

- Languages: C++, JavaScript, Python, HTML, Matlab, C#
- Tools: Git, Node, SQL, Jupyter, Make, JQuery, Unreal, Unity, Gnuplot, TensorFlow, Keras