Joseph Oglio
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WORK EXPERIENCE

Associate Professor, Rio Grande University, August 2025 – Present
- Designed and implemented a comprehensive undergraduate computer science curriculum, aligning course outcomes industry workforce demands.
- Serve as the sole full-time computer science faculty member, overseeing all aspects of program instruction, curriculum development, and academic planning.
- Transitioned the department away from online third party based programs to internalize course delivery and generating significant cost savings for the university and its students.

Research/Teaching Assistant, Kent State University, November 2019 – August 2025
- Researched conventional and emerging blockchain consensus algorithms; developed implementations and a network simulation testbed, resulting in multiple publications.
- Investigated task-free continual learning for image classification, implemented a dynamic neural architecture that adaptively grows expert networks to address catastrophic forgetting.
- Taught 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.
- Supervised students: Jason Graham, Andrew Leonard, Joe Demore, Ethan Morris.

Data Scientist, OpenBlock Labs Inc, July 2023 – November 2024
- Optimized blockchain data pipelines, analyzing over $40B in trade volume and identifying over $18B in arbitrage and wash trades for actionable insights.
- Designed advanced dashboards using Dune Analytics to track trading volume, user behavior, and incentive effectiveness, improving client decision-making during DeFi incentive campaigns.

Software Developer, ZIN Technologies, Inc., June 2018 – November 2021
- Developed astrodynamics tools to convert satellite state vectors between inertial and rotating reference frames.
- Implemented interactive visualizations for orbital trajectories and reference frame transformations.
- Assessed the suitability of commercial game engine physics engines for simulating real-world physical systems.
- Migrated simulations from game engines to more rigorous, lower-cost scientific computing tools, reducing development and licensing overhead.

Intern, NASA Glenn Research Center, January 2018 - June 2018
- Created MATLAB tools to compute satellite trajectories and determine communication intervals based on obstructions, viewing angles, and atmospheric conditions.
- Designed optimized scheduling software to support mission success across competing goals.

EDUCATION

- Kent State University, PhD in computer science. May 2025. “Torus, Trail, and SmartShards Topological Approaches to Fortify Against Byzantine Faults.” *Diss. Kent State University*, 2025.
- Kent State University, master’s in computer science. May 2023.
- Kent State University, bachelor’s in applied mathematics. May 2020. "Partitionable Blockchain." *Electronic Thesis. Kent State University*, May 2020.

NOTABLE ACHIEVEMENTS

- Best Student Paper Award at *NETYS* 2021
- Graduated with Honors from the Honors College at Kent State University
- Eagle Scout, Boy Scouts of America BSA

TECHNICAL EXPERIENCE

- Languages: C++, JavaScript, Python, HTML, Matlab, C#
- Tools: Dune, Deepnote, Generative AI, Git, Node, SQL, Jupyter, Make, JQuery, Unreal, Unity, Gnuplot, TensorFlow, PyTorch, ASP.net, React