

# DREW GRAHAM

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## EDUCATION

**Coastal Carolina University (CCU)**  
BS in Computer Science, GPA: 3.561

**Conway, SC**  
5/2025

## EXPERIENCE

**Los Alamos National Laboratory**  
Student Researcher

**Los Alamos, NM**  
5/2024-8/2024

- Applied undergraduate research to write a paper and deploy code on supercomputers at LANL.
- Implemented data parallelism across multiple GPUs on a single node for model training and inferencing.
- Extended data parallelism to multiple nodes for model training and inferencing.

**Coastal Carolina University**  
Undergraduate Researcher

**Conway, SC**  
1/2023-Present

- Leveraged PetaVision for anomaly detection on the MVTec AD dataset.
- Applied Convolutional Neural Networks and Transformers to the Machinery Fault Database (MAFAULDA) for time series forecasting.
- Developed 2D physics proxy applications and utilized SimVP(Simpler yet Better Video Prediction) for spatio-temporal prediction.

Student Assistant

8/2022-12/2022

- Graded assignments and exams for Dr. Prerit Datta's beginner Python course.
- Assisted students with questions they had about assignments and exams.

**Verus Operations Ltd**  
Full Stack Web Developer

**Remote – London, UK**  
3/2021-3/2022

- Built a full-stack application using Node, Express, and EJS.
- Optimized MongoDB backend to increase performance.
- Effectively collaborated in a remote setting with an international team.

**Standard Financial**  
Data Developer

**Remote – Plano, TX**  
6/2022-3/2023

- Authored Python scripts to populate financial data into MongoDB and keep it up to date.
- Advised on technical aspects of product design as a Back-End Web Developer.
- Built and integrated UI elements using JavaScript, TypeScript, and ReactJS.
- Optimized backend services for performance.

## PUBLICATIONS

- [2] [Warren D. Graham](#), Leslie A. Horace, William M. Jones, Sean Tronsen, Sharmistha Chakrabarti, Vanessa Job, Nathan A. DeBardeleben, "[Applied Machine Learning for Surrogate Modeling: A Spatio-Temporal Approach](#)," *IEEE International Conference on Machine Learning and Applications*, December 2024 (accepted).
- [1] William Jones, Craig Walker, Vivian Hafener, [Warren D. Graham](#), Nathan DeBardeleben, Steven Senator, "[Incorporating Staggered Planned Maintenance Reservations to Improve Performance in Computational Clusters](#)," *IEEE Conference of Cluster Computing / Workshop on Monitoring and Analysis for High Performance Computing Systems Plus Applications*, October 2023.

## PRESENTATIONS AND POSTERS

- [3] [Warren D. Graham](#), "[AIML for Science: Surrogate Modeling Using SimVP](#)," *South Carolina Research Computing Consortium Booth, Supercomputing 2024 (SC24) Conference*, November 2024.
- [2] [Warren D. Graham](#), "[Applied Machine Learning for Surrogate Modeling: A Spatio-Temporal Approach](#)," *Coastal Carolina University Undergraduate Research Symposium*, April 2024.
- [1] [Warren D. Graham](#), "[Applied Machine Learning in Scientific Computing](#)," *South Carolina Academy of Science Annual Meeting*, March 2024.

## TECHNICAL SKILLS

<b>Machine Learning</b>	PyTorch, TensorFlow, Scikit-learn, Keras
<b>Data Science</b>	Pandas, NumPy, Matplotlib, Seaborn
<b>Web Development</b>	TypeScript, ReactJS, Node.js, Express, EJS, PHP
<b>Databases</b>	MongoDB, SQL

## AWARDS AND HONORS

- LIFE Scholarship Enhancement 2022-Present
- LIFE Scholarship 2021-Present
- Achieved Dean's List recognition in 5 out of 8 semesters at CCU.

## ACTIVITIES

- Initial member of the invitation-only Google WebDev Insights community. 3/2021-Present  
Shaping web development through discussions, surveys, and interviews.