# DREW GRAHAM

wdgraham@coastal.edu · (843) 591-4262 · Conway, SC, 29526

## EDUCATION

**Coastal Carolina University (CCU)** **Conway, SC**
BS in Computer Science, GPA: 3.57 5/2025

## EXPERIENCE

**Los Alamos National Laboratory** **Los Alamos, NM**
Student Researcher 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** **Conway, SC**
Undergraduate Researcher 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** **Remote – London, UK**
Full Stack Web Developer 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** **Remote – Plano, TX**
Data Developer 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] <u>Warren D. Graham</u>, 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, <u>Warren D. Graham</u>, 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] <u>Warren D. Graham</u>, "AIML for Science: Surrogate Modeling Using SimVP," *South Carolina Research Computing Consortium Booth, Supercomputing 2024 (SC24) Conference*, November 2024.

[2] <u>Warren D. Graham</u>, "Applied Machine Learning for Surrogate Modeling: A Spatio-Temporal Approach," *Coastal Carolina University Undergraduate Research Symposium*, April 2024.

[1] <u>Warren D. Graham</u>, "Applied Machine Learning in Scientific Computing," *South Carolina Academy of Science Annual Meeting*, March 2024.

## TECHNICAL SKILLS

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

## AWARDS AND HONORS

- LIFE Scholarship Enhancement      2022-Present
- LIFE Scholarship      2021-Present
- Achieved Dean's List recognition in 4 out of 6 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.