DREW GRAHAM

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EDUCATION

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

EXPERIENCE

Los Alamos National Laboratory — **Los Alamos, NM**
Student Researcher — 5/2024-Present

- 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 — 1/2023-5/2024

- 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] 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" (in review).

[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

[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

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.