

# JEREMY M. MYERS, PH.D.

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## — Summary

I am a research software engineer and computational scientist with expertise in numerical methods for machine learning and artificial intelligence and experience developing performant code. I am seeking a full-time position blending robust software engineering and research where high-performance computing, software architecture, and AI/ML converge.

## — Education

**Ph.D., Computer Science**, College of William & Mary, Williamsburg, VA, USA, May 2024  
**M.S., Mathematical Sciences**, Virginia Commonwealth University, Richmond, VA, USA, May 2017  
**B.S., Mathematical Sciences**, Virginia Commonwealth University, Richmond, VA, USA, Dec 2014  
**B.A., International Affairs**, James Madison University, Harrisonburg, VA, USA, May 2009

## — Experience

**R&D Science & Engineering, Computer Science**, Sandia National Labs, CA, USA      Apr 2024–Aug 2025

- Designed and implemented a research-focused, statistical software component for supervised machine learning and tensor regression (NumPy, statsmodels)). It is scheduled for integration as a sub-package within the [Python Tensor Toolbox \(pyttb\)](#) in an upcoming release.
- Authored and open-sourced a federated-learning algorithm (C++, MPI, CUDA, OpenMP) as part of a collaborative contribution to [GenTen](#), an unsupervised machine learning project for tensor analysis.
- Developed algorithm-based data error detection and recovery mechanisms for HPC systems (C++, MPI) inside a production-grade conjugate gradient solver with distributed parallelism.
- Applied advanced NLP techniques, including Transformer-based model training, prompt engineering, and fine-tuning (PyTorch, Hugging Face Transformers, CUDA/cuDNN for GPU acceleration), to enable an LLM to model complex rule-based logic and generate prototype Python implementations for experimental wargames, tracked with Weights & Biases for experiment reproducibility.
- Optimized a novel anomaly detection pipeline with Numba and collaborated across institutions to evaluate and compare our methodology for network traffic, ensuring alignment and knowledge transfer between teams for customer-facing deliverables.

**R&D Graduate Intern**, Sandia National Labs, CA, USA      Jun 2019–Apr 2024

- Created tensor algorithms (CUDA, OpenMP, MATLAB), executed large-scale computational experiments on HPC clusters (MPI, SLURM) for model tuning (PyTorch, Dakota), analyzed data (pandas, Jupyter), and [published the results in a peer-reviewed journal](#).
- Developed a software-based load-balancing strategy for sparse tensors on CPUs (OpenMP) and GPUs (CUDA), [resulting in up to 10× speedup on NVidia Volta GPUs](#).
- Presented novel research at numerous academic conferences, workshops, and symposia as talks and at poster sessions as well as to customers and other stakeholders.

**Graduate Research Assistant**, College of William & Mary, VA, USA      Jan 2019–Apr 2024

- Architected and built a library for matrix sketching and streaming data called [Skema](#) (C, C++ with template meta-programming, CMake), leveraging several parallel backends (CUDA, OpenMP) for high performance.
- Derived convergence criteria for kernel learning solvers applied to streaming data-driven stock forecasting.
- Co-authored a winning National Science Foundation (NSF) grant proposal (\$680K) for machine learning in asset price prediction.

**Graduate Teaching Assistant**, College of William & Mary, VA, USA      Aug 2017–Jan 2019

- Applied expertise in Python, C/C++, programming languages theory, and discrete mathematics to support instruction, guided students through code implementation and optimization, clarified complex algorithmic concepts, and strengthened analytical reasoning and software development skills.

**Graduate Teaching Assistant**, Virginia Commonwealth University, VA, USA      Aug 2015–Aug 2017

- Served as instructor of record for two undergraduate mathematics courses, responsible for curriculum development, classroom instruction, student evaluation, in addition to standard teaching assistant duties.

## — Skills

**Programming Languages:** Python, C, C++, CUDA, Rust, MATLAB, R

**Frameworks/Libraries:** PyTorch, NumPy, pandas, Hugging Face Transformers, Apache Spark

**Software/Tools:** Git, Linux, Jupyter Notebook, VS Code