

Vineeth Gutta

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TECHNICAL SKILLS

- Languages: Python, Java, React JS, Node JS, C++, Bash, SQL
- Software: Git, Docker, PyTorch, TensorFlow, Scikit-learn, Numpy, Pandas, ONNX, REST, relational databases, NoSQL
- High Performance Computing (HPC) software: Slurm, Singularity, Horovod, PyTorch DDP, RAPIDS AI, DeepSpeed, ROCm, Profiling

EDUCATION

University of Delaware <i>Bachelor of Science</i> Major: <i>Computer Science</i> GPA: 3.43 Relevant Course Work: Data Mining, Machine Learning, Secure Software Design, Web App Security, Embedded Systems, Computer Vision, Applied Cryptography	Newark, DE June 2019
 <i>Master of Science/ Doctor of Philosophy</i> Major: <i>Computer Science</i> GPA: 3.95 Relevant Course Work: Algorithm Design & Analysis, Networks, Artificial Intelligence, Deep Learning (DL), Computer Architecture, Bioinformatics, Human Centered AI, Natural Language Processing, Applied Game Theory	 December 2021/ November 2024

EXPERIENCE

PIConGPU Center for Accelerated Application Readiness (CAAR) <i>Computational Researcher</i> <ul style="list-style-type: none">• Ported plasma-physics DL models to the Frontier exascale system at Oak Ridge National Lab (ORNL)• Improved scalability and optimization of ML models on AMD MI250X GPUs with the ROCm software stack	June 2023 – Present
Pacific Northwest National Lab (PNNL) <i>PhD Intern- Scalable Analytics and Decision Optimization group</i> <ul style="list-style-type: none">• Worked on a creating a proxy application for scalable Graph Neural Networks (GNNs)• Created a workflow for sparse, distributed and scalable graphs in distributed memory using Louvain method	Newark, DE June 2022 – August 2022
Leidos/ National Cancer Institute/ NIH <i>Computational Researcher</i> <ul style="list-style-type: none">• Spearheaded efforts to increase portability of DL based biomedical applications• Deployed these applications on newer hardware architectures including ARM based A64FX processors• Extending the capabilities of Flux-scheduler to the cloud to make applications that rely on such a scheduler more widely available to researchers• Generalizing the capabilities of cancer drug discovery DL models by training on tumor-normal tissue data	Newark, DE June 2021 - Present
University of Delaware <i>Graduate Teaching Assistant</i> <ul style="list-style-type: none">• Assisted in several courses including Data Mining and Software Engineering• Taught labs for Software Engineering and lead a team of undergrad and graduate TAs• Incorporated agile methodologies such as code reviews into the curriculum	Newark, DE August 2019 - May 2021
University of Delaware – Dept. of Computer & Information Sciences <i>Instructor</i> <ul style="list-style-type: none">• Taught the intro to object-oriented programming course• Planned, designed, and revised syllabi, curriculum, and instruction content to enhance student learning and experience• Achieved high ratings based on anonymous student feedback (4.57/5.0)	Newark, DE June 2020 - August 2020