JONATHAN WARFIELD MEYER

Github LinkedIn Portfolio j.warfieldmeyer@gmail.com

EDUCATION

University of California, Riverside

MS in Computer Science, 3.7 GPA   *June 2022*
- Area of elective study: Data Mining, Databases, Software Verification

BS in Computer Science, 3.33 GPA   *June 2020*
- Area of elective study: Machine Learning, GPU Architecture, Artificial Intelligence

WORK EXPERIENCE

Intel   *May 2022 - December 2022*

Graduate Technical Intern Premium (Software Engineering Internship)
- Created high speed and accurate machine learning performance models for memory subsystem virtual platforms
- Research pending approval for public release.

UCR CSE Department   *September 2021 - June 2022*

Embedded Systems Teacher's Assistant
- Created and updated Lab content utilizing the Arduino Platform.
- Facilitated discussion through an online class community by creating bots to improve student experience.

PROJECTS

T3rra-Viz

- Machine Learning Inference integrated into a Full-stack web application.
- Iris flower species prediction on an xgboost model trained in Python, inferenced in TypeScript.
- Uses create-t3-app and T3 stack(TypeScript, NextJs, TailwindCSS) with onnxruntime integration.

ORE

- ONNX Runtime Examples - showcases a modular demo of utilizing ONNX Runtime, a cross language machine learning library within a docker container.
- Created a Python Training Pipeline with C++ Inferencing.
- Inferences the trained model on a single core 300,000 times per second, removing disk bandwidth bottlenecks.

GNNVPR

- Created a custom Graph Neural Network combining TAG and SAGE Convolutions for predicting FPGA Routing congestion costs in the open-source Verilog-To-Routing tool.
- Automated data collection & parsing of up to 500GB of graphs, up to 10m nodes & 100m edges.
- Creating a Deep Learning model pipeline using PyG, Lightning, and PyTorch.

TECHNICAL SKILLS

Programming Languages:	Python, C/C++, TypeScript
Data Science Frameworks:	PyTorch, SciKit-Learn
Miscellaneous Proficiency:	Unix, Version Control, Unit Testing

CERTIFICATIONS

SWIFT Yellow Belt   *February 2023*
Software Craftsmanship - Intel Corporation