Scott Sikorski

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Education

University of Rochester, *BS Computer Science*
University of Virginia, *MS Computer Science*

Work Experience

Northrop Grumman   *Summer 2024*

Software Engineer Intern – Secret Clearance
- Rapidly developed Scion USV payload full stack embedded software for electrotonic warfare
- Integrated operator HITL target detection from UI dashboard for mission correctness and safety
- Designed Linux Docker system to provide multiple consistent, isolated, and scalable Scion nodes

Garmin   *Summer 2022 & 2023*

Software Engineer Intern

- Built 12 new sport profiles and integrated 3 new autonomous features for existing ski activities
- Built unit tests with GoogleTest for 10 transition animations and 25 watch faces to verify UI
- Developed 5 new widgets in graphics library for new AMOLED display

University of Rochester and UR LLE Energetics research group   *June 2021 - May 2023*

Parallel Processing & GPU Computation Research under Dr. Adam Sefkow

- Built Quiet Direct Simulation using CUDA for NVIDIA GPU for fast, low-noise fluid simulation
- 2000% improvement for 3d scenario over C++ CPU achieving below 1ns per particle per timestep

Projects

Reinforcement Learning for Mobile Robot Task and Motion Planning   *Spring 2024*

- Developed Double Deep Q-Network with PyTorch & OpenCV for complex sequential tasks
- Trained on 5 home mobile environment simulation with AI2THOR to prevent major forgetting
- Optimal task path found for up to 15 sequential movements/actions and <1% failure rate

Deep Neural Network Verification   *Fall 2023/Spring 2024*

- Researched and implemented sweeping-ϵ of 6 DNNs for 5 properties to verify correctness
- Determine best perturbation value to guide model development and detect deployed abnormalities

Leadership Experience

Cross Country/Track and Field Team Captain   *Fall 2021, 2022, Spring 2023*
Mobile App Development Teaching Assistant   *Spring 2024*

Technical Tools & Other

Programming Languages: Python3, C++20, C#, C11, CUDA-11, Kotlin, Dart, Rust
Frameworks: Jenkins, Flutter, .NET 8.0, PyTorch, TensorFlow, Docker, MongoDB, Numpy, Matplotlib
Native English Speaker, Working French Proficiency