McKay Mower

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Education

University of Utah – M.S. Computer Engineering (4.0 GPA)   Salt Lake City, UT; Aug. 2021 – Dec. 2023
Project focus: Learnable Task Scheduling Optimization
University of Utah – B.S. Computer Engineering (3.5 GPA)   Salt Lake City, UT; Aug. 2018 – May 2022
Salt Lake Community College – A.S. Science (3.9 GPA)   West Jordan, UT; Aug. 2016 – May 2018

Work Experience

Full Stack Engineer (C++, React, Nextjs)   Trident Sensing; Aug. 2023 – Present
- Created frontend and backend communication protocols with websockets and gRPC
- Built entire frontend
  - Animations with framer motion
  - UI component library with Radix UI

Full Stack Engineer Intern (C++, React, Nextjs)   Trident Sensing; Jul. 2023 – Aug. 2023
- Migrated an Angular codebase to Nextjs 13+
- Implementation of algorithms and data structures such as LRU caching schemes.
- Code testing with Cypress

Graduate Researcher (Python, C++)   University of Utah; Sep. 2022 – May 2023
- Used a simulated annealing algorithm in a Taskflow program for data generation
- Created a classification neural network to predict optimized clustering of tasks

Undergraduate Researcher (Python, Pytorch, Pytorch Geometric)   University of Utah; May 2022 – Aug. 2022
- Developed a RNN (94% accurate) and GNN (96% accurate) to predict RTL simulation time
- Tested with NVDLA and RISCV-mini benchmarks

RISCV Fault Testing (C, VHDL, Verilog)   Sandia National Labs; Aug. 2021 – May 2022
- Worked with a group of 4 students
- Modified RISCV GNU GCC to accept new RISCV instructions
- Modified the pipeline for an Arty A7-100t SoC FPGA board

Undergraduate Researcher (C/C++)   University of Utah; May 2021 – Aug. 2021
- Wrote a C++ algorithm and Data Structure to detect 'unreachable tasks' in a Taskflow program
- Published a <u>full</u> research paper into the IEEE Journal: https://ieeexplore.ieee.org/document/9651218

Technical Skills

- ML/AI, C/C++, React, Tailwind CSS, Python

Awards

University of Utah Percy Stovall Scholarship
University of Utah Dean's List
University of Utah Academic Scholarship
New Century Scholarship

Socials

GitHub Portfolio: https://github.com/mckaymower
LinkedIn: https://linkedin.com/in/mmower777
Personal Website: https://mckaymower.com