Will Buziak

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Background

Mechanical Engineering and Computer Science student, seeking to leverage a profound curiosity for the inner workings of my surroundings to find my place within a dynamic and innovative environment.

Research Interests

Embedded computing, Low-power energy alternatives, Field robotics, Parallelism and Optimization, Multi-Physics modeling, Computer Vision

Education

Bachelor of Science in Mechanical Engineering
Minor: Computer Science
University of Tennessee, Knoxville
Expected Graduation: May 2024

Experience

Electrochemical Energy Conversion and Storage Lab, Knoxville, TN
Undergraduate Research Assistant — Aug 2022 - Present

- Conducted modeling of two-phase flow for hydrogen electrolyzer research applications utilizing the Lattice-Boltzmann method
- Designed a web-based interactive user interface for the visualization of Electric Vertical Take-Off and Landing (eVTOL) vehicle energy storage and power delivery system requirements

Neuromorphic Computing Lab, Knoxville, TN
Undergraduate Research Assistant — Dec 2022 - Present

- Worked on embedded computing and control applications using spiking neural networks within the TENNLab neuromorphic framework
- Robotic design for swarming robotic applications with an emphasis on low-power electronics
- Event-based camera data processing for object recognition utilizing speed filtering and clustering algorithms within the TENNLab framework

Eck-Lectric Industries, Knoxville, TN
Mechanical Engineering Intern — Oct 2022 - Dec 2022

- Assisted in original product design for patent development

Shaw Industries, Dalton, GA
Process Engineering Co-op — May 2022 – Aug 2022

- Led process improvement projects in a manufacturing environment with a focus on waste optimization, automation and safety

Awards

- EnergyTech University Prize 2023 Bonus Prize finalist

Computer Skills

- Programming: C/C++, Python, Java, HTML/CSS, MATLAB, RISC-V
- Design Software: Solidworks, Onshape
- Operating Systems: Linux/Unix, Windows Suite
- Version Control: Git
- Single Board Computers: Raspberry Pi 4, Raspberry Pi Pico, Arduino

Contact

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