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**Education**

**Colorado School of Mines** Expected Graduation:

M.S. Computer Science May 2026

**University of Tennessee, Knoxville** Graduation Date:

B.S. Mechanical Engineering May 2024

Minor Computer Science

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# **Experience**

# **Computer Architecture Design** Golden, CO

**Bahar Lab Aug 2024 - Present**

**Graduate Research Assistant**

* Secure Memory Architecture Design and Development for RISC-V Trusted Execution Environments
* Modify, implement and verify RISC-V instructions within a simulated environment

# **Neuromorphic**

# **Computing (TENNLab)** Knoxville, TN

**Undergraduate Research Assistant Dec 2022 – Aug 2024**

* Mathematical Modeling for Dual Fuel Diesel-Ammonia Combustion Engines in a collaborative project with Oak Ridge National Research Lab (ORNL)
* Embedded computing and control applications using spiking neural networks within the TENNLab neuromorphic framework
* Robotic design for swarming robotics applications

**Electrochemical Energy**

**Conversion and Storage Lab (EESCL)** Knoxville, TN

**Undergraduate Research Assistant Aug 2022 – May 2024**

* Computational Fluid Dynamics (CFD) Modeling of two-phase flow for hydrogen electrolyzer research applications
* Web development for interactive dynamic data visualization tools
* Design a user interface for energy storage and power delivery system requirements

**Eck-Lectric Ind.** Knoxville, TN

**Mechanical Engineering Intern Oct 2022-Dec 2022**

* Assist in original product design for patent development

**Shaw Ind.**  Dalton, GA

**Process Engineering Co-op** **May 2022 – Aug 2022**

* Process improvement projects in a manufacturing environment focusing on waste management, safety and process optimization

**Awards**

EnergyTech University Prize 2023 Bonus Prize finalist(Eck-Lectric)

**Computer Skills**

C/C++ | Python | Java | MATLAB | Solidworks/Onshape | Linux/Unix | Git | Raspberry Pi | Shell Scripting HTML/CSS | RISC-V | SLURM | SIMD | gem5 | QEMU | Qiskit | Verilog / SystemVerilog | Rust