

McKenzy Johnson

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OBJECTIVE : I am looking for a position that utilizes **Machine Learning, optimization and mathematical thinking for Hardware and Software Development.**

EDUCATION

Colorado State University | Fort Collins, CO

Computer Engineering, B.S. (December 2024, 3.67 GPA)

IoT and **Embedded Systems** Emphasis, Minor in **Machine Learning**

SKILLS

C/C++ • Verilog • Python • Java • MATLAB & Simulink • ARM & MIPS Assembly • Quartus
Cadence • FPGA • Microcontrollers • Digital Logic • Circuit Design and Analysis • Algorithms
Signal Processing • Debugging • Testing • Microsoft Tools (Excel, Word, PowerPoint)
Optimization • Control Systems • Problem Solving • Critical Thinking • Adaptability
Self-Motivated • Multidisciplinary Teamwork • Detail Oriented • Licensed UAV Pilot

WORK EXPERIENCE

Radar Intern | Numerica, Fort Collins

September 2024 – Current

UAS Technician & Instructor | CSU Drone Center March 2024 – September 2024

- Power system maintenance and design
- Drone student flight instruction
- Mission support on contracted projects

Systems Engineering Researcher | Colorado State University January 2023 – August 2023

- Created a high-level computational systems model for UAVs, developing test cases and structured requirements
- Reworked requirements-based model for Thrust Reversal Actuation System testbed

Instacart Shopper | San Diego, CA & Fort Collins, CO

January 2021 – December 2022

- Self-managed a 20 hour per week work schedule while attending school full-time
- Maintained 5-star reviews by demonstrating diligence and “going the extra mile” for customers

Cashier/Bakery Lead | Panera Bread | Carmel Mountain, CA

April 2020 – March 2021

- Promotion gained by hard work, organization, leadership skills
- Strong communication skills leading to returning customers

Tennis Instructor | Poway, CA

August 2016 – May 2017

- Developed leadership and team skills organizing / co-teaching
- Learned creativity designing drills / personalized instruction

PROJECTS

RamBOTS Team: signal processing data from RP LiDAR to develop obstacle avoidance algorithms

Subway Signal Controller: optimized control logic with state reduction, ensuring correct train direction.

Cadence – implemented design using digital logic gates and sequential logic circuits constructed from transistors. **Quartus** – coded in Verilog, verified accuracy through waveform simulation.

Event Scheduler: using C++, created custom classes for event management

Motor Car: designed and optimized circuit for light-sensitive toy vehicle to enable autonomous operation.

Machine Learning: trained and optimized a prebuild Neural Network for hand signal recognition.

EXTRA CURRICULARS

- Outreach to High Schoolers and Lower Classmen w/ RamBOTS Team
- Assistant in elementary and middle school summer science camps to 40+ students
- Women’s soccer – Varsity at Mira Costa College, Club at CSU, team volunteer work in communities