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