Joseph Moran (KK7UQQ)

Las Vegas, NV

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EDUCATION

University of Nevada Las Vegas   2015 - May 2025
Bachelor of Science in Electrical Engineering   Dean's Honor List

College of Southern Nevada   2017 - May 2019
Associate of Applied Science in Ophthalmic Dispensing Technology   High Honors

TECHNICAL SKILLS

Hardware and Embedded Systems: SystemVerilog, FPGA, Arduino, Serial communication, Computer vision, Testbench, Computer architecture, Power electronics, Photovoltaic systems, Data acquisition, Cable management, Soldering, PCB design
Programming and Software Development: C, C++, Java, HTML, Javascript, CSS, Python, MIPS, Assembly, MATLAB, Simulink, Unity, Robot Operating System, Linux, Ubuntu, VirtualBox, Windows, iOS, macOS, VS Code, Jupyter Notebook
Productivity and Collaboration: Microsoft Office, Google Drive, Firebase, Github, Jira
Design: FreeCAD, AutoCAD, 3D printing via Lulzbot and Ultimaker 3/S5

PROJECT EXPERIENCE

5V Solar Panel   May 2022 - June 2022
- Soldered solar cells in series to provide up to 2.5A at 5V and encased in epoxy.
- Created circuit attachments that regulate and step up/down voltage, to charge devices, li-ion batteries, and run personal AC.

Rodent Trap Electronic Aid   September 2022 - October 2022
- Created electronics system through Arduino, that detects rodents, and assists in triggering trap mechanism.
- Included Arduino, Wifi module, stepper motor control, IR sensor, cooling fan, and mobile app setup for remote triggering.

Coin Sorting Via Computer Vision   September 2023 - Present
- HDL MIPS multicycle processor and ISA design that converts 8-bit data from OV7670 into 16-bit RGB565 pixel data.
- Included CAD design, 3D printing, computer vision, image processing, and servo motor control.

RELEVENT WORK EXPERIENCE

Project Engineer Intern, *WREBOTICS*   June 2024 - Present
- Develop schedule-driven robotics encased in a wooden chassis that has been designed in AutoCAD and laser cut.
- Collaborate with fellow interns on innovative solutions and assisting each other with obstacles.
- Showcase progress each week in a presentable and easy-to-understand manner for others that aren't in the same field of engineering.

Senior PC Technician, *Link Technologies, Clark County Elections IT*   May 2024 - June 2024
- Quality assurance of 1800 iPads for deployment to 135 voting sites.
- Set up and maintenance of 3 voting sites and their corresponding network connections on Election Day.
- Operation and maintenance of high-precision machinery that aids in processing and counting 1000s of ballots.

LEADERSHIP EXPERIENCE

Student Guidance, Navigation, and Control Team Lead, *UNLV Satellite Club, RebelSat*   October 2022 - Present
- Ensured the subsystem's 3 team members were on the same page in terms of knowledge and purpose of assigned tasks.
- Coordinated with other subsystem team leads to integrate each subsystem's work together.
- Organized work to present in general meetings open to the public and to other team members

CERTIFICATION

State of Nevada, Engineer Intern #0T9134   January 2024 - Present
Fundamentals of Engineering Exam, Electrical and Computer   December 2023

WORK EXPERIENCE

Licensed Optical Technician, *EssilorLuxottica, LensCrafters*   December 2017 – Present
- Familiarized with high-precision optical manufacturing processes governed by ANSI tolerance standards.
- Supervised up to 2 apprentices at a time to oversee performance growth, state law compliance, and licensure progress.