

**Nathan Shoults**

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**Education****Northern Arizona University**

Bachelor of Science in Electrical Engineering

Spring 2024

**Skills and Experience**

- Led a team of three graduate Mechanical and two Electrical Engineers in the design, construction, and implementation of a Scanning Tunneling Microscope for Atomic resolution microscopy for quantum dot research for the School of Informatics, Computing and Cyber Systems at NAU
- Seven years experience with Fusion 360, SolidWorks, and SLS 3D printing
- Experienced in Matlab/Simulink, PSpice, Altium Designer, and SolidWorks Electrical.

**Programming and Simulation:**

- Skilled in Autohotkey, Basic, C, C#, C++, VHDL, Verilog, and Modelsim/Quarta.
- Experience with Python, Linux, Java, and HTML/CSS.

**Equipment Expertise:**

- Experience with oscilloscopes, digital multimeters, function generators, Arduino, Raspberry Pi, and many other microcontrollers and SBC's.
- Proficient in the setup, calibration, and troubleshooting of advanced lab equipment such as signal analyzers, spectrum analyzers, and logic analyzers, ensuring accurate data collection for experimental and research purposes.

**Relevant Projects:**

- Developed a computer vision system using fiducials for robot-to-world interaction.
- Built an arcade cabinet and rebuilt a two-stroke go-kart.
- Created a hands-free flamethrower and multiple Arduino-based projects.

**Work Experience**

Construction ( two years - summertime ) - framer, electrician, tile layer, drywall, plumber, and everything else

Home depot ( two years ) - warehouse and product assembly

McMillian Bar and Kitchen ( two years ) - manager, bartender, server, bouncer, host, and dishwasher