Martin Wnorowski

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Electrical and Computer Engineer seeking roles in firmware, hardware design, test engineering, and wiring/harness development, with hands-on experience in schematic capture and circuit design.

EDUCATION

Texas A&M University *College Station, TX*

B.S. in Electrical and Computer Engineering, Minors in Project Management & Math *Class of '23*

SKILLS

Hardware: SPICE Simulation, FPGA Breadboarding, OrCAD Capture & Circuit Design, Oscilloscopes, Logic Analyzer
Software: Python, C++, Linux OS, GitHub, Excel (Advanced Functions & Macros)
Other Skills: Microsoft Office Suite, Microsoft Visio, Technical Documentation

WORK EXPERIENCE

Electrical Engineer – *Textron Systems*, *Engineering LDP, Wilmington MA* *Aug 2024 – Aug 2025*

- Collaborated with the Terminal Protection Assembly team to create, analyze, and verify schematics in OrCAD Capture
- Created detailed diagrams of electrical systems in Microsoft Visio, streamlining the assembly process and reducing assembly errors through clear visualization
- Analyzed over 100 parts using the Pinsky Algorithm to determine the risk of Tin Whiskers on printed circuit boards
- Conducted thorough testing of various digital FPGA boards, ensuring flawless Circuit Card Assembly (CCA)
- Collaborated with a team of engineers to co-write comprehensive source control documentation for resistors, capacitors, and inductors

Avionics and Electrical Systems Engineer – *Textron Aviation*, *Engineering LDP, Wichita KS* *Jul 2023 – Aug 2024*

- Designed and delivered the 'Delivery Documents Tool', a full-stack web application (MySQL, Python, Django) to replace a legacy macro-based workflow. The internal tool generated Avionics Equipment Lists (AELs) and Electrical Load Analyses (ELAs), standardizing documentation across teams and supporting customer-facing deliverables.
- Supported conversion of harness and electrical diagrams from HarnessSys to Siemens Capital, validating wire lists and automating comparison of over 17,000 connections with Excel tools

Summer Engineering Support – *TxDOT ITD*, *Vendor Management and Souring, Austin TX* *May 2022 – Aug 2022*

- Supported IT procurement requests by reviewing submissions in PeopleSoft and TxDOT service catalog systems
- Audited around 70 project records in PPM Pro, checking documentation, schedules, and status reports to confirm completeness before closure
- Produced Excel analyses and visual reports of project timelines and solution types

PROJECTS

Precision Drone Spray – *Senior Design Project, Computer Vision Sub-System* *Aug 2022 – May 2023*

- Designed and implemented a computer vision pipeline on an NVIDIA Jetson Nano, integrating a Luxonis OAK-D camera and GPS to identify and geotag weeds in real time
- Trained and validated an object detection model (YOLOv5s) using labeled crop field images, achieving ~62% mAP accuracy in weed detection

Parsons Mounted Cavalry Attendance – *Software Engineering Class* *Jan 2023 – May 2023*

- Built a client-facing attendance tracking app in Ruby on Rails with Bootstrap, focusing on usability and polished UI.
- Collaborated in an Agile team environment, contributing to Jira sprint planning, audits, and peer code reviews.
- Delivered a functional web application to the client, ensuring requirements were met and customer usability was prioritized.

Linux OS Boot – *Microprocessor System Design* Class *Oct 2020 – Dec 2020*

- Used a ZYBO Z7-10 FPGA development board in conjunction with an embedded on-chip microprocessor to implement a hardware and software codesign of a single-board computer booting the Linux operating system
- Ran Xilinx Vivado FPGA software for the hardware system and coded in the C programming language along with an Ubuntu interface for the software subsystems and I/O devices

CERTIFICATES

Student Pilot – *FAA* *Dec 2023 – Current*

Eagle Scout – *Boy Scouts of America, Troop 20 Austin* *Jan 2011 – Jan 2018*