**Mitchell Arndt**

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View Online Portfolio:<https://marndt26.github.io/>

**EDUCATION**

**Purdue University** | West Lafayette, IN**August 2018 – December 2021**

*Bachelor of Science in Electrical Engineering – Honors College*

*Computer Science Minor*

*Certificate of Entrepreneurship and Innovation*GPA: 3.96

**Purdue University** | West Lafayette, IN**August 2021 - Present**

*Master of Science in Computer Architecture*GPA: 3.73

*Dean’s List: Fall 2018, Spring 2019, Fall 2019, Spring 2020, Fall 2020, Spring 2021, Fall 2021*

**EXPERIENCE**

**Computer Design and Prototyping Lab** | West Lafayette, IN**August 2019 – December 2019**

*Computer Engineering Laboratory*

* Collaborated with a partner to design a dual-core, pipelined microprocessor with Instruction & Data caches using the MSI coherence protocol
* Generated tests for microprocessor with System Verilog test benches and parallel assembly programs

**Autonomous Motorsports Purdue** | West Lafayette, IN**May 2019 – Present**

*Electrical Lead Engineer*

* Lead team members to integrate drive control systems for self-driving race car by generating embedded C firmware to interpret serial commands and output PWM, analog, and digital drive control signals for high-speed navigation
* Created custom PCB using KiCad to route control signals from microcontroller to electrical subsystems

**Purdue Neurotrauma Group** | West Lafayette, IN**Dec 2019 – Present**

*Research Assistant*

* Collaborated with interdisciplinary team to precisely measure and analyze football tackle forces on a player’s head
* Programmed microcontroller to collect 120 analog channels at a 1kHz sampling rate and write data to SD card
* Presented force collection device at Purdue Undergraduate Research Expo, receiving top scores from judging panel

**Northrop Grumman** | Chandler, AZ**June 2021 – August 2021**

*Electrical Engineering Intern in Launch Vehicles Division*

* Developed graphical RSS Error Budget Analysis Tool for analog avionics sensors with Python and JavaScript

**E3 Displays** | Phoenix, AZ**May 2020 – August 2020**

*Electrical Engineering Intern*

* Created testbench for Ventilator touch display for quality analysis, incorporating suggestions from operators
* Automated adhesive dispensing process with embedded system to ensure precise temperature and

**Card Connect** | Phoenix, AZ**May 2019 – Present**

*Software Consultant*

* Work with CEO to produce new business management applications based on growing and changing needs
* Automated payroll system with JavaFX to streamline 2-hr. employee payroll process to one button click

**LEADERSHIP & PHILANTHROPY**

**Tau Beta Pi Engineering Honor SocietySpring 2020 – Present**

**Zeta Beta Tau Fraternity** —Athletics Chair, Freshman Class President**2018 – Present**

* Puppies on the Porch, Get on the Ball (Riley’s Children Hospital), PUDM

**Engineering Honors Peer MentorFall 2019 – Fall 2020**

**SKILLS & CERTIFICATIONS**

**Programming Languages:** C, C++, Java, JavaFX, Full Stack JavaScript, Python, MATLAB

**Technical Skills**: System Verilog, QuestaSim, Design Compiler, Git/GitHub, KiCad, ANTLR, STM CubeMX, LTspice