

# Mitchell Arndt

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

## OBJECTIVE

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Actively seeking internship in Digital Design and Verification of High-Speed Networking devices for summer of 2022

## EDUCATION

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**Purdue University** | West Lafayette, IN **August 2021 – Present**  
*Master of Science in Computer Architecture* GPA: 3.92

**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

## EXPERIENCE

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**Purdue SoCET** | West Lafayette, IN **January 2022 – Present**  
*Design Verification Engineer*

- Collaborated with vertically integrated team to design L1/L2 cache hierarchy for RISC-V processor to improve memory latency by 400%
- Generated UVM testbench with constrained random input to verify cache correctness before fabrication

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

- Led 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 **December 2019 – Present**  
*Research Assistant*

- Collaborated with interdisciplinary team to precisely measure forces involved in football tackling for real-time analysis of a player's neurological safety
- Lead hardware/firmware design efforts to prototype force measurement device small enough to fit in football helmet
- 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 to automate required preflight analyses to eliminate the need for future engineering effort and cut project costs

**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 eliminate operator error and product waste

**Card Connect** | Phoenix, AZ **May 2019 – August 2019**  
*Software Consultant*

- Worked with CEO to automate business management tasks like payroll and lead acquisition, increasing productivity

## TECHNICAL SKILLS

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

**Software Tools:** Questa Sim, Design Compiler, Git/GitHub, KiCad, ANTLR, STM CubeMX, LTspice

## LEADERSHIP & PHILANTHROPY

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**Tau Beta Pi Engineering Honor Society** **January 2020 – Present**

**Zeta Beta Tau Fraternity** **August 2018 – Present**

**Engineering Honors Peer Mentor** **August 2019 – August 2020**