Mitchell Arndt

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

EDUCATION

Purdue University | West Lafayette, IN **Class of Fall 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 **Class of Fall 2022**
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 create a dual-core, pipelined microprocessor with I & D caches using the MSI coherence protocol
- Generated tests for microprocessor design 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 test bench for ventilator touch display for post-op quality analysis, incorporating suggestions from operators
- Automated precise mass and temperature adhesive dispensing process by building an embedded system

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 the 2-hr. employee payroll process to one button click

LEADERSHIP & PHILANTHROPY

Tau Beta Pi Engineering Honor Society **Spring 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 Mentor **Fall 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