MICHAEL ORSCHELN

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SKILLS

Proficiencies: C++, C, Assembly, Java, Python, Javascript, Typescript, HTML, CSS, Cmake, MATLAB, Simulink, Git, Jira, Cadence OrCAD, KiCad, Circuit/Power Analysis, MPLAB, Verilog, VHDL, Xilinx Vivado, MIPS Microsoft Office (Word, Excel, PowerPoint), Adobe Photoshop
Frameworks: React, Chakra-UI, NextJS, TailwindCSS
Languages: English, Spanish
OS: MacOS, iOS, Windows, Linux, Unix, KaliLinux
Other: Computer Architecture, Digital Systems Design, Agile, Software Development Life Cycle

EDUCATION

University of Alabama — Tuscaloosa, AL — UA Honors College
Bachelor of Science in Computer Engineering — **GPA:** 3.0/4.0
Minors: Mathematics, Computer Science & Spanish — **Expected Graduation:** December 2024

PROFESSIONAL EXPERIENCE

Repario — New York, NY — May 2023 – August 2023
Digital Forensic Intern — https://www.repariodata.com/

- Analyzed digital evidence from various devices including 9 different forensic tools for contribution to litigation.
- Delivered 2 forensic examination reports including 10 forensic artifact analyses
- Automated the processing of 1030 GB of forensic data
- Collected and or prepared 4776.32 GB of data for delivery to attorneys

SALTO Systems — Oiartzun, Gipuzkoa, Spain — June 2022 – August 2022
Project Management Intern — https://saltosystems.com/en-us/

- Discovered 3 Apple Wallet® cross functional pain points for project prioritization and communicated the results to the Product Manager
- Built onboarding courses delivered to 64 global business units reducing onboard load by 45%
- Collaborated 2 times a week with Apple software and business leads

Charter Capital Management, Inc. — Boston, MA — May 2021 - June 2021
Associate Intern — https://chartercm.com/

- Evaluated real estate investment projects using comparative and cash flow analysis. Contributed to 10 acquisitions with total valuation of $233 million
- Built user-centric, responsive website with analytical tools resulting in a 152% increase in organic search traffic
- Reduced market research workload for residential property acquisitions by 75%

PROJECT EXPERIENCE

IEEE SoutheastCon Hardware Competition — Senior Design Project — August 2023 - March 2024

- Goal is to build fully autonomous that completes a series of tasks on a complex course to send supplies to space
- Researched localization algorithms (SLAM) compatible with ROS and NVIDIA Jetson Nano for autonomous robot
- Integrated gyroscope and accelerometer sensor with existing robot using an Arduino MEGA and I2C protocol with data accuracy within 1 degree for all 3 dimensions (yaw, pitch, roll), optimized using mathematical models

ADC and DAC Conversion Using SPI & Photocell Sensor — Microcontrollers

- Used an analog-to-digital module on the PIC24 and the SPI-based MAXIM 548 DAC integrated circuit to convert analog light sensor value to digital value displayed on LCD screen
- Samples analog voltage inputs from the photocell every 50 milliseconds, uses a 32-bit timer-driven interrupt to control input sampling and 8-bit light intensity variable

EcoCAR — University of Alabama

- Used MATLAB and Simulink to test and improve energy efficiency in 2019 Chevy Blazer for classification as a 100% electric, level-two autonomous vehicle
- Designed energy consumption plan to test 4 drive cycle variations for Propulsion Controls & Modeling team

ADDITIONAL INFORMATION

Honors: President's List, UA Scholar
Leadership: UA Men's Club Soccer Team Captain
Interests: Soccer, Neuroscience, Music Production, Sigma Phi Epsilon Fraternity