# Venkat-Saicharan (Charan) A. Nanduri

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#### **OBJECTIVE**

- Highly motivated 4<sup>th</sup> year bachelor's student seeking a computer or electrical engineering co-op or internship utilizing hardware, product, and/or electrical design, implementation & testing using knowledge gained from personal / school projects, and industry experience; open to relocation.
- Personal interest in Computer Hardware, Consumer Electronics, Fashion, & Economics

Transferred to Ohio State in Fall 2021 due to concerns with my father's health.

• Repair and built computers and small-scale electronic devices in spare time.

#### **EDUCATION**

## The Ohio State University, College of Engineering

Columbus, OH

Bachelor of Science in Electrical & Computer Engineering, Minor in Economics

May 2025

## **Purdue University, Polytechnic Institute**

West Lafayette, IN

Bachelor of Science in Computer Engineering Technology

August 2020 - May 2021

New Albany High School

New Albany, OH

Diploma

May 2020

#### RELATED EXPERIENCE

# **Milwaukee Tool (Techtronic Industries)**

Chicago, IL

Electrical Engineering Intern

June 2023 – August 2023

- Worked on capacitive touch sensing and design implementation within the Outdoor Power Equipment organization.
- Fully fleshed out and validated the use of this technology in power tools and identified further test cases.
- Completed a clean sheet schematic and PCB Layout design for a new sensor IC and its associated components including adding parts to component libraries, getting the design manufactured and tested and completed comprehensive technology reviews with senior engineers and managers.
- Wrote C firmware to integrate the new sensor board with existing platform code and implemented it seamlessly into the existing hardware resulting in a fully functioning standalone prototype.
- Created thorough technical documentation for future engineers to use the technology.
- Presented the technology in a comprehensive demo to key executives.

#### **OSU Center for High Performance Power Electronics**

Columbus, OH

Undergraduate Research Assistant

September 2022 – May 2023

- Worked on an Ultra high Power Density Liquid Metal Cooled Inverter
- Wrote firmware to read data off an optical temperature sensor to detect whether the circuit is getting too hot. Then integrated sensor reading into control firmware to prevent overheating.
- Used a microcontroller to run the 3-phase inverter system. Wrote control firmware in C leveraging efficient code structure and memory allocation to generate signal based on inputted frequency.

## **Milwaukee Tool (Techtronic Industries)**

Chicago, IL

Electrical Engineering Intern

*June* 2022 – *August* 2022

- Worked on inductive position sensing and characterization with unreleased tools in the New Product Development division.
- Helped test unreleased products, wrote testing firmware, utilized electronic test equipment., and presented findings to executives.

#### RELEVANT COURSEWORK & SKILLS

- Relevant Coursework: Analog & Digital Systems, Microcontrollers, Discrete Structures, Software Development & Design, FPGA's & VHDL, Eng. Ethics, Physics Series, Calculus Series, Linear Algebra
- Advanced understanding of Microelectronics, Computer architecture, Linux, Altium Designer, C/ C++, IAR, MATLAB
- Extensive experience with C & uses of binary for fine control of I/O, including applications in microcontrollers, LCDs, and sensors.
- Hands-on Laboratory experience with Multimeter, DC Power supplies, and multi-probe oscilloscope instruments.