

# John Doe

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## OBJECTIVE

To obtain a Full-time position in the field of Electrical Engineering Technology

## EDUCATION

Michigan Technological University  
**BS Electrical Engineering Technology**  
GPA: 2.30

Houghton, MI  
**Dec 2016**

## ENGINEERING PROJECT EXPERIENCE

Michigan Technological University – Senior Design

**Project:** Motor Drivers and Industrial Applications

**Objective:** To design and fabricate a PLC driven conveyer belt

- Research, study and understand the communication between a conveyor belt and a PLC
- Designed a Stepper Motor Driver System that would communicate with a PLC for stepping mechanism
- Established calculations and considerations required to take advantage of a DC Motor
- Designed and fabricated the circuit required to control a Stepper Motor
- Fabricated driver and connected with motor and PLC
- Tested 555 Timer in stable mode and inverted signal, ULN 2003 Darlington Array and 12V Stepper Motor for current, voltage and frequency using an oscilloscope
- Wrote 10+ page technical report including research, industrial application, design, test results and analysis and presented to academic audience.

**Project:** 4-Way Traffic Light

**Objective:** To design and build a four way traffic light for use in a 4-way traffic intersection

- Designed a four-way traffic light using Multisim
- Obtained test signals from schematic using Multisim
- Completed working circuit using components and Breadboard
- Replicated the circuit using Eagle printed circuit board editor
- Printed the circuit board and soldered the components

**Project:** Microprocessor Model

**Objective:** Design and build a 16 bit microcontroller using VHDL modeling software

- Utilized and understood the purpose of Logic Gates in this application of Digital Logic
- Conceived a truth table for the microcontroller using Boolean Logic
- Designed description consisted of entity/architecture pairs
- Created opcodes and ran test bench using VHDL

## COMPUTER/TECHNICAL SKILLS

- |                            |                |            |
|----------------------------|----------------|------------|
| ▪ C                        | ▪ Labview      | ▪ Assembly |
| ▪ Ladder Logic Programming | ▪ THR-SIM      | ▪ AutoCAD  |
| ▪ VHDL                     | ▪ Quartus      | ▪ NX       |
| ▪ MATLAB                   | ▪ Oscilloscope | ▪ PLC      |

## CO-CURRICULAR INVOLVEMENT

IEEE (The Institute of Electrical and Electronic Engineers)  
REAC (Railroad Engineering Activities Club)  
NSBE (National Society of Black Engineers)