

# Liam Mulcahy

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## EDUCATION

**University of Cincinnati**, Cincinnati, OH

*Bachelor of Science*, Electrical Engineering, *expected* May 2021

GPA: /4.00

## WORK EXPERIENCE

**Electrical Engineer Co-op**

7901 Innovation way, Mason OH

Intelligrated

May 2018 - Present

- produced cost estimates the cost of electrical devices, third-party control devices, electrical layout drawings for use by other estimating teams (installation), and estimates of electrical engineering and software engineering for the implementation of the proposed project..
- Contributed to 500 million worth of sold projects in 2019.
- Design and engineer VFD and PLC control panels using Intelligrated's own AutoCAD Electrical tools (ICAD)

## PROJECTS

**CNC Network Switch:**

- Converted program implementation from manual controller to CAM software package.
- Selection from 8 CNC machines via RS-232.
- Increased production speed with CAM generated high efficiency tool paths.
- Tightened average tolerances from  $\pm .020''$  to  $\pm .003''$
- Increased program storage size from 45 KB to 3 TB.

**Mock Water Treatment Plant HMI and Control System:**

- High performance HMI created in MATLAB to monitor water treatment plant systems.
- Monitors status and history of pump activity, water in/out, tank levels, alarms.
- Control systems designed in MATLAB to control water pump and correct for low/high water levels in tanks.

## TECHNICAL EXPERTISE

**Languages:** Assembly, Python, C++, MATLAB, L<sup>A</sup>T<sub>E</sub>X.

**Applications:** AutoCAD, Microsoft Office Suite, NI Multisim, VMWare, Xilinx ISE design suite for Verilog HDL, Mastercam, Mazak Mazatrol.