MICHAEL TURNER

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Automation and instrumentation engineer with experience designing and implementing real-time control systems, data acquisition frameworks, and sensor validation platforms. Skilled at developing autonomous systems using Python, embedded C, and control logic concepts parallel to PLC environments. Strong background in optical systems, industrial communication protocols, and cross-functional engineering collaboration.

EXPERIENCE

JULY 23 - PRESENT

Sensing System Engineer, Apple inc.

DRI responsible for optical measurement system which corrected error in MP factory line
Built robotic system for module characterization and validated performance against spec
Developed and executed electrical sensor module validation plans
Set up data pipelines using Python and Matlab for data collection and analysis

JANUARY 23 - JULY 23

SENIOR ELECTRICAL CONTRACTOR, TURNER ELECTRONIC SOLUTIONS

Captured PCB revision requirements, designed the board, and organized production
Conducted detector performance optimization, reducing cross-talk and improving power efficiency
Developed UI display for wearable optical sensor
Revised calibration routine, leading to reduced production time

NOVEMBER 19 – JANUARY 23

SENIOR ELECTRICAL ENGINEER, INTELLIGENT OPTICAL SYSTEMS

Spearheaded clean sheet electrical design of patent-pending modular optical sensor system
Developed multiple cards for system including RS485 comms, SPI ADCs, I2C memory
Redesigned our lightweight opto-electrical sensor, improving noise performance 70x
Wrote machine learning classifier in C and Python, reducing false alarms

EDUCATION

DECEMBER 2018

B.Sc. ELECTRICAL ENGINEERING, MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

Graduated with honors

2017-2018

CHIEF ELECTRICAL ENGINEER, MST FORMULA SAE ELECTRIC

Designed and tuned real-time PID control loop for custom servo system (gear motor + encoder) used in drag reduction system
Responsible for completing FMEA and System specification documentation

2015-2017

ELECTRICAL ENGINEER, MST FORMULA SAE ELECTRIC

Self-taught skills to meet team needs
Programmed dashboard (HMI) using C++