Andrew Woltman

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Education

Illinois Institute of Technology, Chicago, IL   May 2020

B.S. Computer Engineering, B.S.Electrical Engineering

Relevant Coursework:

- Data Structures
- Systems Programming
- Digital Computers & Computing Standards-Based Web Design

- Operating Systems
- Image Processing
- Database Organization and Design
- Object-Oriented Programming I

- Microcomputers/Embedded Comp.
- Object-Oriented Programming II
- Computer Organization and Design

Awards and Honors:

- Interprofessional Project—Received 1st place out of 6 teams for design of modifications to home monitoring system using Bluetooth technology for Chicago Police Department.   December 2018

Experience

Jr. Hardware and Firmware Test Engineer (Honeywell)   July 2020 – Present

Easi Contractor (Raleigh, NC)

- Develop and maintain python PYQT5 applications for testing in NPI.
  - Developing an integral knowledge of electronic lab test equipment including temperature chambers, signal generators, radio communication analyzer, and power supplies.
  - Writing test scripts using python and lab test equipment knowledge to increase lab productivity by 40 percent.
  - Support and utilize CI/CD practices with Honeywell metering software maintenance and deployment utilizing the automation framework Jenkins by working with senior software engineers.
  - Develop python test scripts which manipulate test benches and exhaust the firmware of a IOT device.
  - Created python script that allows parallel processing of electric/gas meter data for real time test statistics.

Electrical Engineering Intern   May 2017 – August 2019

Manitowoc Ice (Manitowoc, WI)

- Gained software experience while working on Android application for ice machine control system.
  - Connected to ice machine with Python using TCP/IP for Modbus protocol for data transfer to database.
  - Created HTML test files to test PHP scripts for user authentication and registration.
  - Coded in Java and PHP to create an Android application with login authentication.
- Assisted in qualifying a new manufacturing facility for 5% annually savings on touch screen displays.

- o   Tested and debugged touch screen test fixture using Pro-face, Serial to Ethernet converter, and C.

- o   Used MPLAB® X IDE to verify data from resistive touch screen was packaged and sent to Serial to Ethernet converter.

- o   Used Comptrol converter to verify data sent from touchscreen on serial ports was converted to Ethernet static IP local network.

- o   Counted and displayed pass/fail touches with a Pro-face unit.

- o   Accompanied Senior Reliability Engineer to run HALT testing at Elite Labs in Chicago.

May 2018 – August 2018

- Used single photon time of flight sensor to create clear glass sensing solution for dispensing applications.

- Made changes to electrical sub-systems using the ECR/ECO process to reduce warranty claims.

- Implemented end of line test using single degree of freedom test sled to nominalize acceleration for warranty claims reduction at Mexican manufacturing facility.

- Wrote test code for cycle testing of vibration motors to perform reliability data analysis.

May 2017 – August 2017

- Prepared and executed test plans to verify supplier specifications meet company requirements.

- Used 8D Root Cause Analysis for COPQ investigation on thermistors. Presented status on progress made to Senior VP of Engineering. Communicated with supplier executives about non-conforming products based on requirements.

- o   Saved 10% on annual warranty spending with implemented fix.

- Facilitated on-site visits with suppliers to discuss progress on correcting failures to meet design specifications.

- Modeled circuits to validate new circuit configuration for accommodating water sanitation with UVC light.

- Executed integration and regression testing for control and display board software on ice machines.

Software

Software Development		Hardware/Test Development
• C • SQL • Java • PyCharm	• Python • GitHub • Visual Studio Code	• National Instruments – LabVIEW • Autodesk Inc. - AutoCAD and Inventor • DesignSoft, Inc. - TINA Design Suite - Spice based circuit simulator

Campus Leadership and Involvement

Member, Illinois Tech Men's Tennis   March 2017-May 2020

- Student Assistant Coach (September 2019-May 2020)
  Captain (September 2017-May 2019)

Member, Illinois Tech Cyberhawks Club   September 2018-May 2020

- Treasurer (September 2018-May 2019)
- Attended National Cyber Summit in Huntsville, AL (June 2019)

Member, Illinois Tech Student Athletic Advisory Committee   September 2015-May 2019

- Internal Committee (September 2015-May 2019)
- Treasurer (May 2018-May 2019)

Member, Illinois Tech Men's Volleyball   August 2015-May 2017