Heiko Stowasser

EDUCATION

University of Cincinnati: *College of Engineering and Applied Science* Expected May 2020
Bachelor of Science in Computer Engineering
Minor: Embedded Systems
GPA: 3.38/4.0

EXPERIENCE

Colorfy Gmbh: ***Berlin, Germany*** Jan 2019 – Aug 2019
Embedded Development Intern

- Collaborated in the development of several consumer IoT devices.
- Created simple user interface for a RaspberryPi based hardware testbench. Written in Python using JupyterNotebook.
- Wrote I2C drivers in C for multiple sensors.
- Gained experience using Vagrant to deploy virtual build environments for software development.
- Debugged prototype PCBs. This involved writing firmware tests as well as doing physical testing using equipment such as multimeters and oscilloscopes.
- Developed firmware to format NFC tags to pass WiFi credentials according to Android specifications. This was developed to make the WiFi onboarding process of IoT devices faster for consumers.
- Assembled prototype PCBs using reflow oven and hand soldering.

Fives Machining Systems: ***Hebron, Kentucky***
May 2018 – Aug 2018
Aug 2017 – Dec 2017
Jan 2017 – Apr 2017
Controls Engineering Co-op

- Implemented Interpreter design pattern in C# to parse machine log data.
- Wrote .NET application with WPF user interface to generate machine usage reports from log data.
- Assisted with project to add a second control console to a machine. This entailed writing a Visual Basic application that could communicate over local network, reading and updating electrical schematics, and writing documentation for users.
- Developed a simple embedded HMI application for a handheld Siemens pendant. Required learning how to read/write packets to communicate using MODBUS/TCP.
- Tested and documented HMI program for Siemens 840D
- Install a SICK safety PLC on a test bench. Involved interfacing with IO, wiring inside high voltage enclosure, and PLC programming.
- Ported pre-.NET Windows XP applications to Windows 7.

ACTIVITIES

MITRE Cyber Academy Embedded Capture the Flag 2020

- Semester long competition in which teams design and implement a secure MP3 player, then attack each others designs.
- Design platform is a Zynq 7000 running PetaLinux, dev environment is Xilinx Vivado
- Founding Member of UC Team

Peer Teaching Assistant for Engineering Design Thinking Sept 2019 – Present

- Lead weekly mentoring session
- Assist freshmen during in-class activities
- Grade homework and exams

SKILLS

Programming Languages

- C/C++
- C#/.NET
- Python
- Verilog
- Matlab
- Java

Technologies

- Linux
- Git/GitHub/Bitbucket
- Android Studio
- Visual Studio
- Vivado
- Vagrant
- HSPICE

Other Skills

- German (Fluent)
- Soldering
- Power tool usage
- PCB Assembly
- Circuit design

Availability: Summer 2020 Co-op