Colin Holzman

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Work Experience

Senior Embedded Software Engineer

Hot Melt Technologies
May 2018 to Present

Responsible for electronic components at Hot Melt Technologies.
Managed production of wide array of industrial control electronic assemblies including in house and contract assembly.
Led ETL safety certification project for the majority of HMT's product line.
Designed new electronic products from the ground up involving PCB design/prototyping, firmware development, and mechanical considerations.
Wrote low level C and C++ programs for 8 and 32 bit microcontrollers.
Used knowledge of SPI and I2C protocols to create products utilizing precision ADCs, current sensors, and LCD displays.
Developed firmware and corresponding Android and iOS apps for prototype WiFi connected hot melt equipment.
Used USB bootloader to create self updating firmware.

Embedded Software Engineer

Hot Melt Technologies
August 2013 to May 2018

Reverse engineered 20+ PCB designs including firmware to bring HMT's electronics in-house.
Established comprehensive test program for production board assemblies including test fixture hardware and firmware, and a .NET desktop application for control and test records database.
Implemented PID temperature controller algorithms and user interfaces for 8 bit microcontrollers using C and C++.
Created a C# application to translate hierarchical state machine descriptions written in XML to executable C code for use in HMT products.

Engineering Intern

US Army TARDEC
Summer 2012

Performed calculations for design of ballistic test stand.
Build database of AWS and MIL welding standards information.

Aircraft Structural Maintenance Journeyman

United States Air Force (Active Duty)
July 2007 to March 2011

Applied theoretical knowledge of aircraft structures to real aircraft repairs.
Mitigated corrosion damage on aircraft using knowledge of corrosion theory.
Researched, ordered, and received aircraft hardware and components.
Designed and manufactured cost saving rivet installation tool.
Trained and managed junior members.

Education

Master of Science in Computer Science

Lawrence Technological University
May 2018

Bachelor of Science Summa Cum Laude in Mechanical Engineering

Lawrence Technological University
December 2013

Member of Tau Beta Pi Engineering Honor Society and Pi Tau Sigma Mechanical Engineering Honor Society.

Skills

• Embedded software • PCB design • C/C++ • Version control (git, mercurial) • Linux • C# • Java • Android • iOS • CAD • Microcontrollers