Matthew Fredrick



OBJECTIVE

I am looking to leverage the skills and experience from my engineering career to tackle new challenges in software development. I would like to continue to build on a solid knowledge base in a field that pushes me to learn and innovate. I'm particularly interested in expanding my knowledge of DSP and C++ through developing software for audio applications.



EDUCATION

BS Mechanical Engineering (GPA 3.58) Worcester Polytechnic Institute Graduated: 2013

Relevant Coursework: MATLAB/Octave algorithm development and programming for signal processing and design calculations, Java, engineering testing using signal analysis from sensors

SELECTED EXPERIENCE

Inventor Drafting and Automation Specialist Ipswich Bay Glass

2018

Pioneered programs and developed algorithms to reduce time to production by automating drafting work flow in Autodesk Inventor. Worked with a team to migrate drafting from AutoCAD to 3D CAD technology ahead of competitors. Implemented custom solutions using Inventor API, iLogic, C++, VBA, and Excel.

Design Engineer SARC Global Inc. 2017-2018

Managed R&D projects from conception to production process. Used data analysis, cost-tracking, and documentation to maximize profitability and effectiveness of designs. Produced 3D models and prototypes using Solidworks and 3D printing. Created the documentation for products and processes under development and maintained records of revisions and changes.

Solutions and Documentation Engineer Vacuum Technologies Inc. (VTI) 2014-2015

Led technical operations for the organization's North American outpost. Assisted in PLC machine control GUI development. Debugged and improved control algorithms. Wrote and edited technical documentation including the North American product operation manual for a product line, engineering and troubleshooting guide to streamline service calls, and the North American web page for an international equipment manufacturer. Provided remote and on-site support and troubleshooting and technician training.