Matthew Fredrick

Software Developer

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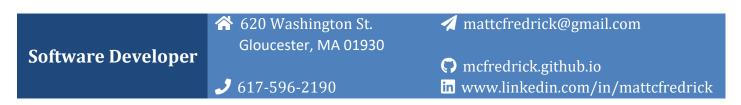
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OBJECTIVE

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.

SKILLS

Python | C++ | DAWs | GIT | MATLAB | DSP | MIDI | Documentation

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 automate drafting workflow in Autodesk Inventor. Worked with a team to migrate from AutoCAD to 3D CAD technology ahead of competitors. Implemented custom solutions using Inventor API/iLogic, C++, VBA, to interface with Excel and automate drafting tasks reducing time to production.

Design Engineer   SARC Global Inc.   2017-2018
Managed R&D projects from conception to prototype. Used data analysis, cost-tracking, and documentation to maximize profitability and effectiveness of designs. Developed 3D models using Solidworks and created prototypes with additive manufacturing technology. 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 for English language users. Debugged and improved PLC algorithms. Wrote and edited technical documentation including the English language product operation manual for a product line, engineering and troubleshooting guide for service technicians, and the North American web page for an international equipment manufacturer. Provided remote and on-site support and troubleshooting.