Joel Love

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Objective:

To leverage my knowledge of electrical and software engineering to produce the best products possible, and to continue learning from those with more experience to increase my knowledge.

Education and Training:

- **Messiah College, PA** (2010-2014)   graduated Magna cum Laude with a B.S.E. and a double concentration in Electrical Engineering and Mechanical Engineering; Dean's List every semester – 3.79 GPA; Participant in College Honors Program; Recipient of the President's Scholarship
- **University of Oklahoma, OK** (2016-2018, expected)   Pursuing an M.S. in Electrical and Computer Engineering

Computer Skills:

- Familiar with Python for writing small scripts and algorithms, or small application design
- Familiar with SolidWorks for 3D design and modeling, and Multisim and Ultiboard for circuit board design and debugging
- Familiar with LabView application design and programming using National Instruments DAQs or third party equipment
- Familiar with C, C++, and Assembly Language for embedded system programming
- Fluent in ActionScript 3.0, HTML, CSS, Javascript, SQL and PHP for dynamic W3C compliant site/application design
- Fluent in C# (using agile programming techniques) for desktop application development

Employment:

8/15-Present   **KBRwyle, Oklahoma City, OK**   **Electrical Engineer 3**
- Read Air Force Technical Orders and performed engineering analysis on aging systems to determine project requirements
- Presented project solution at preliminary and critical design reviews for Air Force customer
- Designed electrical systems to specifications, optimizing for customer needs, project time, cost, and maintainability
- Developed and performed validation tests on designed systems on the bench, in lab environments, and finally in the field
- Wrote detailed documentation to fully characterize completed systems, and document the design process
- Served as lead engineer on four separate 1-year projects since contract year 2016 - led small teams to complete all on time
- MCP: Performed extensive analysis of a proprietary differential communications protocol using LabView and a DAQ
- MCP: Worked closely with KBRwyle software team to rewrite a desktop application in C# using agile techniques
- Dipole: Simulated an antenna array using ANSYS HFSS, and confirmed results through anechoic chamber tests
- Delay Line: Designed circuit boards using MultiSim and UltiBoard for a passive mechanically adjustable delay line
- MWS Rewrite: Led KBRwyle software team reverse-engineering a legacy MS-DOS program and re-writing it in C#
- LON Replacement: Reverse-engineered legacy circuit boards and developed replacement system using Allen Bradley PLCs

7/14-7/15   **SRC, Inc, Beavercreek, OH**   **Electronic Warfare Engineer**
- Analyzed large quantities of intelligence reports, synthesized information and assessed radar system capabilities
- Created Transition Logic Maps (TLMs) of complex radar systems in the Joint Analytic Data Editor (JADE), using Python algorithms to extend basic editor capabilities where necessary
- Verified systems to be accurate through simulation, and presented completed systems to government analysts
- Assisted with quality control on peer-designed systems and trained new employees on system design principles

6/12-8/12, 6/13-8/13   **Fermi National Accelerator Laboratory, Batavia IL**   **Research Intern**
- Worked with the Cryogenic Dark Matter Search experiment team to design a neutron veto and passive shielding
- Simulated neutron interactions in Geant4 using the C++ programming language
- Analyzed and graphed data on various scintillator materials, optimizing for pulse-shape discrimination and light yield

1/13-5/13   **Stine Consulting (Katapult Engineering), Dillsburg PA**   **Programmer**
- Developed an HTML5/CSS3/JavaScript GUI with Python backend to embed custom XML data into the App1 header of JPEG images for efficient data storage and retrieval
- Application will be used in-house to streamline workflow for local and remote employees processing images

6/09-8/09   **NASA Glenn Research Center, Cleveland OH**   **Intern**
• Worked in the hangar developing a database of technical directives, and assisted with airplane modifications