Joe Shamah

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Professional Experience

Malin Space Science Systems — San Diego, CA
Senior Digital Electronics Engineer — *December 2016–Present*

– Designed and implemented FPGA solutions for cameras in space applications.
– Implemented "ground support equipment" FPGA logic (VHDL) and corresponding GUI software (Python) for use in validating and testing cameras in various laboratory and field settings.

OSR Enterprises AG — Tel Aviv-Yafo, Israel
Embedded Security Engineer — *October 2015–September 2016*

– As part of a year-long work-study program, performed reverse engineering of proprietary embedded systems in order to uncover significant vulnerabilities within popular vehicle models.

Ultra Electronics - 3Phoenix — Hanover, MD
Principal Electrical Engineer — *September 2013–September 2015*

– Led electronics design and development effort for next generation tactical shipboard sonar transceiver.
– Architected and implemented hardware and FPGA firmware solutions for multiple sonar subsystems.
– Delivered fully-functional VHDL solutions ahead of schedule through use of simulation test benches (reduced debug time) and automated build scripts.

L-3 Chesapeake Sciences Corporation — Millersville, MD
Electronics Engineer — *July 2011–August 2013*

– Designed and tested FPGA & microcontroller hardware solutions for use in military towed sonar array and shipboard transceiver applications.
– Created software scripts (C, Python, & Bash) and hardware widgets to streamline various tasks and test scenarios.
– Implemented intuitive and user-friendly interface for control/monitoring of multiple sonar systems (C++) and led a field training course for operators.

NASA-New York State Space Grant Consortium — Binghamton, NY
Undergraduate Research Fellow — *Spring 2011*

– Created C# application enabling researchers to conduct experiments for determining the effect of time delays on human operators in completing tasks.

National Institute of Standards and Technology — Gaithersburg, MD
Undergraduate Research Fellow — *Summer 2010*

– Designed testing facilities and LabVIEW framework to assist in development of future energy efficiency standards and test procedures for residential appliances.

Team Red Studio, LLC. — New York, NY
Lead Programmer — *October 2005–September 2009*

– Worked on all facets of both small and large scale website projects—research, planning, code development, testing, delivery, and maintenance.

Education

The Johns Hopkins University — Baltimore, MD
M. Sc. Electrical & Computer Engineering, GPA: 4.0/4.0 — *August 2011–May 2014*

State University of New York at Binghamton — Binghamton, NY
B. Sc. Computer Engineering, GPA: 3.8/4.0 — *August 2007–May 2011*