

## Joe Shamah

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### Professional Experience

#### OSR Enterprises AG

*Embedded Security Engineer*

**Tel Aviv-Yafo, Israel**

*October 2015–September 2016*

- Uncovered significant vulnerabilities within various systems of popular vehicle models.
- Performed reverse engineering of proprietary embedded microcontroller based systems, including patching of byte code in order to affect code execution.

#### Ultra Electronics - 3Phoenix

*Principal Electrical Engineer*

**Hanover, MD**

*September 2013–September 2015*

- Led electrical engineering effort for design and development of next generation tactical ship-board sonar transceiver.
- Architected and implemented hardware and FPGA firmware solutions for multiple sonar sub-systems.
- 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

*Electronics Engineer*

**Millersville, MD**

*July 2011–August 2013*

- Designed and tested hardware (FPGA and microcontroller) 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 (C++) for control/monitoring of multiple sonar systems and led a field training course for operators.

#### NASA-New York State Space Grant Consortium

*Undergraduate Research Fellow*

**Binghamton, NY**

*Spring 2011*

- Created software using C# to enable researchers to conduct experiments for determining the effect of time delays on human operators in completing tasks.

#### National Institute of Standards and Technology

*Undergraduate Research Fellow*

**Gaithersburg, MD**

*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.

*Project Manager/Lead Programmer*

**New York, NY**

*October 2005–September 2009*

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

#### The Johns Hopkins University

*M. Sc. Electrical & Computer Engineering, GPA: 4.0/4.0*

**Baltimore, MD**

*August 2011–May 2014*

#### State University of New York at Binghamton

*B. Sc. Computer Engineering, GPA: 3.8/4.0*

**Binghamton, NY**

*August 2007–May 2011*