Reshef Elisha

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Languages: English (Fluent), French (Fluent), Hebrew (Fluent) — US citizen
Electrical Hardware: Multi-layer PCB Design, Altium, Altera Quartus, x86 Assembly, Oscilloscope, Logic Analyzer, Test Bench, Soldering
Software: C/C++, Python, Java/Android, HTML/CSS/JS, MATLAB, Linux, Git
Mechanical: 3D CAD/Digital Design, Autodesk CAD, SolidWorks
Relevant Coursework: Microprocessors, Digital Signals Processing, Advanced C, Semiconductors, Electromagnetics, Computer Architecture

EDUCATION:

Purdue University, West Lafayette, IN
Master of Science in Electrical Engineering - Communications, Networking, Signals and Image Processing

Purdue University, West Lafayette, IN — *Graduating December '17*
Bachelor of Science in Electrical Engineering — *Major GPA 3.5*

ENGINEERING EXPERIENCE:

Lockheed Martin Controls & Avionics Center of Excellence Electronics Intern — *Sunnyvale, CA - Summer 2017*
- Orion Launch Abort System Controller testing automation in Python and telemetry analysis in MATLAB
- Motor driver and initiator design in Zuken CR8000, including block diagrams and rad-hard parts analysis
- Cable design for motor valves testing and noise reduction

Electric Imp Product Development Support — *Mountain View, CA (remote) - Sep. 2016 - Dec. 2016*
- Continuing work and responsibilities from previous internship
- Work with Product Development and Support teams to create new customer solutions
- Electrical (PCB, Altium Designer), Mechanical (Enclosures, Solidworks) design and modifications

Electric Imp Maker in Residence (Hardware Intern) — *Mountain View, CA - Summer 2016*
- Designed multi-layer PCBs in Altium, IoT sensor applications
- Designed new and modified existing enclosures using SolidWorks
- Wrote firmware and application level code to interface with I2C, SPI, UART peripherals
- Wrote server side code to parse and display data collected by sensor boards
- Designed new sensor node. Product now being manufactured and sold.

Zego Robotics 3D Printing/Robotics Intern — *Pittsburgh, PA - Summer 2015*
- Designed a multi-color 3D printer nozzle in Autodesk Fusion
- Wrote the printer's interface to communicate with PC over USB
- Designed and programmed UI for printer's software in JavaScript

University of Pittsburgh Swanson School of Engineering IT intern — *Pittsburgh, PA - 2014–2015*

RESEARCH:

Human Mission To Mars Conceptual Design, Power Systems Team — *Purdue University - 2017*
- Under Dr. Sarag Saikia, researched and designed conceptual power systems for an evolvable mission to Mars
- Identified technology readiness levels and possible technology readiness reductions
- Created block diagrams and power schedule analysis
- Planned for entry-descent-landing restrictions and continuing growth of power needs
- **Presented** the project and a Virtual Reality implementation of the engineered mission with Dr. Saikia at:
  - **Humans To Mars Summit 2017, Washington DC**
  - **NASA Goddard Space Center, Washington DC**

3D Printed Steel in Nuclear Reactor Environments — *University of Pittsburgh - 2015*
- Under Dr. Isaac Garcia, studyed the microstructure of 3D printed stainless steel and application in nuclear reactors

PUBLICATIONS:

Exploration Systems Requirements to Establish a Sustainable Human Presence on Mars — *AIAA Space - Sept. 2017*
Elizabeth A. Marandola, Amy Comeau, Glynn Smith, Noah Gordon, Michael Weiss, Reshef Elisha, Steven A. Zusack, Benjamin Hilker, Kevin LeCaptian, L. Pablo Podesta, and Sarag J. Saikia

LEADERSHIP:

Industrial Relations Lead, Purdue IEEE student branch — *2017-Present*
Conference Chair, SEDS/IEEE SpaceRace Conference — *2016-Present*
President and Chair, University of Pittsburgh IEEE student branch — *2015-2016*
Organizer, Director of Design & Marketing, SteelHacks — *2015-2016*
Outreach Team Lead, Pitt Makerspace — *2015-2016*

ACTIVITIES AND SOCIETIES:

Dance Instructor, Purdue West Coast Swing — *2017-Present*
Power Systems Design Team, Purdue IEEE Remote Operated Underwater Vehicle — *2016-2017*
Active member in Hillel and Computer Science Club — *2014-Present*