ALEXANDER BOLINSKY

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EDUCATION

Washington University in St. Louis — 2012 - present
B.S. in Computer Science & Engineering

Relevant Coursework

Logic & Discrete Mathematics, Digital Logic & Computer Design, Computer Science I & II, Introductory Robotics, Algorithms & Data Structures, Undergraduate Research in ESE, Digital Systems Laboratory, Object-Oriented Software Development Laboratory, Systems Software, Computer Architecture, Computer Systems Design, Operating Systems, Computer Networks, Computer Graphics, Compilers, Machine Shop

Leadership

IEEE · Co-President & Treasurer of Student Branch (ieee.wustl.edu)

Men's Squash Team · Ex-Co-Captain, Named Harrow Squash Player of the 2014 Men's National Championship Team

Awards

Top College Team at GlobalHack V 2015

ENGINEERING & RESEARCH EXPERIENCE

Vasper Systems — May 2015 - August 2015
Software Development Intern — San Jose, California

· Designed and developed an android application that enables log in via NFC or QRCode, and implemented a secure backend user database infrastructure behind the app using MySQL and PHP, following security guidelines to ensure HIPPA compliance.

Institute of Electronics & Electrical Engineers Student Branch — February 2014 - present
Co-President & Treasurer — St. Louis, MO

· Currently designing and building a force/haptic feedback glove for virtual reality applications. Designed and constructed a "Segway" that utilizes a 9 DOF IMU sensor, an Arduino, and filter and error algorithms for self balancing. Collaborating with several other active members on projects involving developing for the Oculus Rift, hardware and software design and construction, and 3D printing.

Electrical & Systems Engineering Research — August 2014 - January 2015
Undergraduate Research — St. Louis, MO

· Developed a system enabling two robots, each with a pair of microphones, to autonomously identify and move toward a sound source. Designed Brain Computer Interface (BCI) algorithms from EEG signals and implemented the design in LabVIEW to control the movement of a robot.

Digital Systems Laboratory — August 2014 - December 2014
Student — St. Louis, MO

· Designed and implemented a ten band stereo audio equalizer in verilog and deployed the design on an FPGA. Components of the design include a Finite Impulse Response (FIR) filter for filtering the ten frequency bands, a Serial Peripheral Interface (SPI), the equalizer itself, and a LabVIEW application/GUI.

Dr. Hugh Taylor's Lab, Yale University School of Medicine — June 2011 - July 2012
Research Intern — New Haven, CT

· Performed research and produced a professional paper, poster and presentation for the 2011 Science Research Program Student Lecture Series. A second summer's research culminated in a literature review and abstract.

TECHNICAL STRENGTHS

	Most to Least Proficient:
Languages	C++, Java, C, Verilog, VHDL, PHP, JS, Python, MATLAB
IDEs	Android Studio, Xilinx ISE, Arduino, Eclipse, Visual Studio, LabVIEW, EagleCAD, Xcode
Tools	Git, Illustrator, Photoshop, Excel, Powerpoint
Manufacturing	3D printing, circuit board design & fabrication, metalworking (lathe, mill, etc.), SEM/TEM imaging