# STEFAN GVOZDENOVIC

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## EDUCATION

**Boston University, Boston, MA** *Aug 2018 - Present*
PhD in Electrical and Computer Engineering
**Worcester Polytechnic Institute (WPI), Worcester, MA** *Aug 2012 - May 2015*
Bachelor of Electrical and Computer Engineering Overall Percentage: 3.9/4.0

## WORK EXPERIENCE

**Radio Software Engineer, Silicon Labs** *Jan 2016 - June 2018*
Maintained radio abstraction library in C for 802.15.4 and Bluetooth LE PHY layer
Automated interframe spacing measurements for Bluetooth LE, Used multiprotocol library;
Demo Direction-of-Arrival feature; Bring-up 90nm and 40nm EFR32MGXX SoC
**Software Engineer, Analog Devices** *June - Dec 2015*
Developed tests for SC584 SoCs peripherals CAN, Linkport, Ethernet, USB, DDR3
**Research Assistant, WPI** *Sept 2014 - May 2015*
Implemented timestamp-free network synchronization on TMS320C6713 DSP board
**Product Engineer, Analog Devices** *May - Aug 2014*
Characterized harmonic distortion, open-loop gain, bias current of ADA4805 op-amp
**Teacher Assistant, WPI** *Jan - May 2014*
Debugged real-time C written on MSP430F5529 interfacing SPI, CAN, I2C, UART
**Research Assistant, WPI** *Sept - Dec 2012*
Programmed proportional-integral-derivative speed controller on ATMEGA328 controller

## PROJECTS

**Major Qualifying Project: Software Defined Radio Platform, WPI** *Sept 2014 - Apr 2015*
Designed a single-board computer with Xilinx Zynq 7030 SoC and AD9361 transceiver
**Real-Time Digital System Processing, WPI** *Oct - Dec 2013*
Implemented FIR and IIR adaptive filters for audio noise cancellation
**Electrical and Computer Engineering Design, WPI** *Mar - May 2013*
Designed schematic and PCB for data logger. Soldered packages: QFN, 48-LQFP, 0603
Programmed the serial peripheral interface between sensor ADT7310 and STM32f051
**Real-Time Embedded Systems, WPI** *Oct - Dec 2012*
Programmed one channel oscilloscope on OLED display using LM3S8962 controller
Programmed spectrum analyzer by performing Fast Fourier Transform on LM3S8962

## SKILLS

**Software:** C/C++, MATLAB, Java, Eagle, Linux, Verilog, Python, x86 assembly
**Hardware:** MSP430, Atmega32, ARM, Logic analyzer, Oscilloscope, 3D printer
**Foreign Languages:** Native Serbian, Advanced German, Basic Russian

## EXTRA-CURRICULAR

**Open Water Scuba Diving certificate, Boston, MA** *Nov 2018*
**Cape Cod Marathon 2013, Falmouth, MA** *Oct 2013*
**Volunteer at Arduino booth at Maker Faire , NY, NY** *Sept 2013*
**International Physics Olympiads (IPhO), Tallinn, Estonia** *July 2012*

## PUBLICATIONS

Stefan Gvozdenovic, Johannes K Becker, and David Starobinski. SDR-based PHY characterization of Zigbee devices. In MWSCAS 2020: 63rd IEEE International Midwest Symposium on Circuits and Systems, 2020.

Stefan Gvozdenovic, Johannes K Becker, John Mikulskis, and David Starobinski. Truncate after preamble: PHY-based starvation attacks on IoT networks. In Proceedings of the 13th ACM Conference on Security and Privacy in Wireless and Mobile Networks, pages 8998, 2020.

Johannes K Becker, Stefan Gvozdenovic, Liangxiao Xin, and David Starobinski. Testing and fingerprinting the physical layer of wireless cards with software-defined radios. Computer Communications, 2020.

Liangxiao Xin, Johannes K Becker, Stefan Gvozdenovic, and David Starobinski. Benchmarking the physical layer of wireless cards using software-defined radios. In Proceedings of the 22nd International ACM Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems, pages 271278, 2019.

M. Li, S. Gvozdenovic, A. Ryan, R. David, D.R. Brown III, and A.G. Klein. A Real-Time Implementation of Precise Timestamp-Free Network Synchronization. Proceedings of the 49th Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, November 8-11, 2015.

Neamtu, Rodica, Ramoza Ahsan, Jeff Stokes, Armend Hoxha, Jialiang Bao, Stefan Gvozdenovic, Ted Meyer et al. "Taming Big Data: Integrating diverse public data sources for economic competitiveness analytics." In Proceedings of the First International Workshop on Bringing the Value of Big Data to Users (Data4U 2014), p. 25. ACM, 2014.

## AWARDS

**Charles O. Thompson award, WPI** *2013*
**Deans list, WPI** *2012*
**First Place in Republic Competition in Physics, Bosnia and Herzegovina** *2007/2008*