

# Richard Shen

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## EDUCATION

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**NEW YORK UNIVERSITY**, New York, NY

May 2016

*M.S. in Electrical Engineering*

- Concentration: Signal Processing and Control Theory
- Courses include data structures, algorithms, probability and matrix theory

**RUTGERS UNIVERSITY**, New Brunswick, NJ

May 2014

*B.S. in Biomedical Engineering*, Minors: Mathematics/Psychology

- Graduated Cum Laude

*Honors:* Dean's List

## PROFESSIONAL AND RESEARCH EXPERIENCE

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**SoSC STEM Teaching Fellow**

June 2015 – Current

*K12 STEM Education, NYU School of Engineering*

- Contributed in the development and implementation of a STEM program involving electrical engineering, programming and wireless communication that impacted over 1000 students in the NYC area
- Taught programming concepts using an Arduino Uno and integrated technologies such as RFID and WIFI shield, parallax robot kits and IR/FT transmitters/receivers

**Adjunct Instructor**

September 2014 – Current

*Department of General Engineering, New York University*

- Analyzed and returned feedback on technical reports related to electrical, mechanical and computer engineering
- Created a course outline and conducted weekly presentations for a class of 18 students

**Senior Design Project**

September 2013 – May 2014

*Department of Biomedical Engineering, Rutgers University*

- Collaborated with Dr. John K-J Li to develop a non-invasive monitor for assessing hypertension
- Applied vascular tonometry as a cost-efficient means of detecting pulse pressure in the radial and carotid arteries in order to determine arterial compliance
- Created a MATLAB program to automatically calculate pulse transit time (PTT) from the pulse wave and ECG transforms by using a peak-detection algorithm

**Research Assistant**

January 2012 – December 2012

*Department of Biomedical Engineering, Rutgers University*

- Created a GUI with MATLAB that modeled the dynamics of alcohol absorption in the body
- Utilized ImageJ to record the number of live/dead/transfected cells using filters and edge detection
- Presented to a panel of professors and contemporaries on a new model that quantified drug release from lipid implants

## TECHNICAL SKILLS

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**Programming Languages**  
**Software/Other**

Python, C, C++, JavaScript, MATLAB  
HTML/CSS, Arduino, Simulink, LabVIEW, Microsoft Office