Anthony Bisulco

abisulco@coe.neu.edu

Education

Gordon Scholar at Northeastern University **Boston, MA**
Bachelor of Science in Computer and Electrical Engineering (GPA: 3.97/4) May 2018
Activities: Aeronautical/Electrical Engineering Society, Entrepreneurs Club, Tau Beta Pi and Outdoors Club

Stony Brook University **Stony Brook, NY**
Young Scholars Program May 2014

Professional Experience

Massachusetts Institute of Technology Lincoln Laboratories **Boston, MA**
Summer Researcher May-Aug 2015

- Developed and implemented a configurable FPGA moving average filter
- Adapted MATLAB image processing algorithms to an FPGA for a UAV Micro-Ladar
- Debugged and solved various power board issues for Avalanche Photo Diodes(APD)
- Built a visualization tool to process APD binary files
- Evaluated different FPGA models for PCI Express design on Virtex 7
- Collaborated with employees and outside consultants to further development of active optical systems

Northeastern University Sensing, Imaging, Control and Actuation Laboratory **Boston, MA**
ALERT Gordon-CensSSIS Scholar/Undergraduate Researcher Sept 2014-Present

- Designed and implemented an FPGA and Arduino transmitter/receiver spatial coded imaging control system
- Implementing optimization and compressive sensing methods for electromagnetic modeling
- Developing new metamaterial antennas and compressive sensing reflector for spatial coded imaging
- Characterized microwave switches using network analyzers for coherent imaging
- Collaborated with a group of researchers to advance laboratory projects

Northrop Grumman **Bethpage, NY**
High School Intern Jan-May 2014

- Studied Electromagnetics, programming, circuit design and avionics at weekly meetings
- Consulted with a team of engineers on how these concepts apply to E-2C aircraft
- Conducted Finite Element Analysis on various bridge structure concepts for use in wings of aircrafts

Engineering Projects

Radiation Detection and Localization (1st Place URI Hackathon) **Kingston, RI**
Python Programmer/Electrical Engineer Nov 2015

- Developed a framework in Python for an Internet of Things platform to detect and localize a radiation source
- Developed a machine learning algorithm in order to classify and give a predication error for localization

Computer Lab Booking System for Commack High School **Commack, NY**
Agent and Programmer Oct 2012-June 2014

- Developed a Java based program based on school administrations needs to book computer labs digitally
- Implemented and reviewed program with a user base of 200 + users
- Adjusted program with current feedback from teachers

A Practical Notification System to Identify Incoming Sudden Ionospheric Disturbances **Commack, NY**
Independent Researcher Sept 2012-March 2014

- Designed, implemented and tested a new way to detect solar disturbances using off the shelf parts with a custom MATLAB program
- Studied concepts including Fourier transforms, digital filters, sampling theory and electromagnetics

Certifications/Skills

Programming/Software: VHDL, MATLAB**,** Java, C++, C, LabVIEW, Visual Basic, Python and Mentor Graphics Expedition/DxDesigner

Technical Skills: Radar, Remote Sensing, FPGA Programming and Microcontroller Programming (Arduino, Raspberry Pi and others)

Federal Communications Commission: Extra Class Amateur Radio Operator (Nov 2011)

Honors and Awards: Eagle Scout Rank, Published research in the Journal for EU Council for Antennas and Propagation, Experimental Secondary Science and United Nations Space Weather initiative Journal, AP Scholar with Distinction, Finalist at the International Science and Engineering Fair and Junior Science and Humanities Symposium