Samuel G. Baysting

814 Society Hill Boulevard
Cherry Hill, NJ 08003
856-361-6665
samuelbaysting@gmail.com
http://samuelbaysting.com

OBJECTIVE

To obtain a career that furthers my knowledge and understanding in the fields of Computer Engineering and Information Systems and allows me to use my creativity and technical skills to solve problems.

EDUCATION

Rutgers University – New Brunswick, NJ — Sept. 2012 – May 2016

B.S. Electrical and Computer Engineering – 3.774 GPA

- Focus: Wireless Communications and Computer Vision
- Dean's List: Fall 2012 – Spring 2014, Spring 2015, Fall 2015

Burlington County Institute of Technology – Medford, NJ — Sept. 2008 – Jun. 2012

High School Diploma

- Graduated Valedictorian

EMPLOYMENT HISTORY

Rutgers University – New Brunswick, NJ — Sept. 2014 - Present

Research Assistant

- Advisor: Dr. Wade Trappe, IEEE Fellow, Electrical and Computer Eng'g (Sept. 2014 – Present)
  - Area of Study: Wireless Communications
  - Project 1: Wi-Fi LTE Interference. Responsible for Wi-Fi, LTE and noise experiments on the ORBIT wireless radio testbed at the Wireless Information Network Laboratory (WINLAB). Tools and methods used include signal generation, software defined radio use, and data analysis in MATLAB
  - Project 2: Directional Networking. Responsible for designing the test structure for the directional networking waveform being designed at WINLAB. Tools used include Arduino and Raspberry Pi prototyping, RS485 serial programming, C++, HTML and PHP
- Advisor: Dr. F. Javier Diez, Mechanical Engineering (Sept. 2015 – Present)
  - Area of Study: Unmanned Aerial Vehicle Autonomy
  - Responsible for using 3D point clouds and imaging to perform 3D mapping and calculate mission critical decisions in-flight, such as collision avoidance.
  - Tools used include Linux, Arduino boards, INS sensors, C++, Python, OpenGL, CUDA, Point Cloud C++ Library and MATLAB Computer Vision Toolbox

Lockheed Martin MST – Moorestown, NJ — Jun. 2015 – Aug. 2015

Software Engineer – Intern

- Software Engineer for the Mission Systems and Training (MST) business area of Lockheed Martin supporting development of the "DataShark" program for the U.S. Navy AEGIS contract
- Designed and implemented new features and conducted bug fixes in Java and using the Eclipse RCP and plugin system
- Assisted in design and support of custom automated test framework in Python and automated tests in Python, Sikuli and our own "keyword" language

Lockheed Martin MST – Moorestown, NJ Jun. 2014 – Aug. 2014

Systems Engineer – Intern

- Multi Element Integration and Test (MEIT) Engineer for the Mission Systems and Training (MST) business area of Lockheed Martin supporting the U.S. Navy AEGIS contract
- Responsibilities included lab setup, lab support and lab shutdown during test events, regression testing, test procedure generation, test procedure execution, documenting test results, scheduling, console operations and simulator support

Rutgers University – New Brunswick, NJ Sept. 2013 – May 2014

Physics Learning Assistant

- Responsibilities included educating students within a classroom setting, liaising with the professor and teaching assistants to construct classroom activities
- Designed and maintained my own study group

Radwell International Inc. – Lumberton, NJ Oct. 2011 – Aug. 2013

Electronics Technician

- Extensively researched outgoing products, performed full testing utilizing wiring diagrams, power supplies, multimeters and a wide variety of hand/power tools including in-house assets
- Wrote full reports for circuitry testing, repair and inspection results

PUBLICATIONS

Sagari, S., Baysting, S., Saha, D., Seskar, I., Trappe, W., Raychaudhuri, D., Coordinated Dynamic Spectrum Management of LTE-U and Wi-Fi Networks, *IEEE Dynamic Spectrum Access Networks Conference*, 2015.

Recipient of Best Technical Paper Award

Baysting, S., Sagari, S., Trappe, W., Seskar, I., Experimental Evaluation of Co-existent LTE-U and Wi-Fi on ORBIT, *Poster session presented at the IEEE MIT Undergraduate Research Technology Conference*, 2015.

SKILLS SUMMARY

- High-level Programming Languages: Python, Java, C++, MATLAB, SQL, Bash/CSH, PHP, JavaScript, HTML
- Low-level Programming Languages: C, SystemVerilog, MIPS, ARM
- Widely-used libraries: Boost, Point Cloud Library, OpenGL, OpenCV, MatPlotLib
- Development Tools: Linux, Terminal, CMake, Eclipse, Jenkins, JIRA Agile, Sikuli, Arduino, Raspberry Pi, Software Defined Radios (SDR)
- Circuit Design Programs: PSPICE, OrCad Capture, NI Multisim, Altera Quartus II
- Data Analysis Software: MATLAB, Microsoft Excel, Maple, Mathematica
- Security: SHA-256 and AES-128 implementations, AES keygen implementation, IDA Pro
- Highly motivated team player with excellent communication and presentation skills

REFERENCES

Available upon request