



Nicolas R. Acton

Systems/Computer Engineer
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EMPLOYMENT/RESEARCH INTERESTS

Data Science; Cyber-Physical Systems; Human-Computer Interaction; Mobile, Distributed & Cloud Computing; Intelligent Systems; Computer & Network Architecture (Physical and Virtualized); Computer & Information Security;

EDUCATION

M.Eng. Computer Engineering, Virginia Tech

Focus: Software and Machine Intelligence

January 2017 - December 2020

Developing a graduate-level education in Software Intelligence and Machine Learning as well as their applications towards data science and optimization.

B.Sc. Engineering, James Madison University

Minors: Physics, Mathematics

August 2010 - May 2014

Developed a fundamental understanding of various engineering concepts including thermal analysis, fluid dynamics, material science, engineering management, systems engineering, circuitry, mechanics, and more.

WORK EXPERIENCE

Project Engineer, In-Q-Tel

Arlington, VA

June 2016 - Present

Prototyping systems composed of emerging technologies to drive new innovations within the Intelligence Community and explore emerging technology trends. Installing, testing, and troubleshooting sophisticated software and hardware deliverables from start-up portfolio companies for Intelligence Community customers.

Systems Engineer, Alion Science and Technology

Washington, DC





January 2015 - May 2016

Provided acquisition support to Navy PMS 400D, DDG (Guided Missile Destroyer) 51 Flight IIA/III shipbuilding effort. Conducted investigations for client engineering requests and provide recommendations for various on-board ship systems.

Engineering Associate, Lockheed Martin/QSACK

Manassas, VA

May 2014 - November 2014

Provided support to the lead engineers, verified and implemented design changes in support of the Navy Technology Insertion Hardware (TIH) contract, and involved with placing commercial server technology into military submarine applications.

Research Assistant, JMU Mathematics Department

Harrisonburg, VA

October 2013 - May 2014

Performed and documented research and experimentation concerning applications of the Coanda effect on oil nozzles by measuring acoustic noise of high-velocity air flow inside of an anechoic chamber.

Intern, Insight Engineering LLC.

Largo, MD

May 2012 - August 2012

Assisted in the design and management of civil engineering projects, including the new Malaysian embassy in Washington DC.

Intern, SAIC


Mclean, VA

May 2011 - August 2011

Performed data-management/tracking tasks to assist engineers/analysts. Assisted in daily reports/projects in support of a contract with the Department of Energy.

SKILLS

Work Experience | School Experience | Self-taught

- Software Development
 - Languages
 - Python
 - Java
 - Javascript
 - MatLab
 - Web Development
 - HTML
 - CSS
 - Javascript
 - Python
 - Data Science/Analysis
 - Jupyter/Anaconda
 - CAD
 - Solidworks
 - AutoCAD
 - PTC
 - SketchUp
 - Virtualization
 - VirtualBox
 - AWS
 - VSphere
 - OpenStack
 - Docker
 - Project Management
 - Microsoft Project
 - SCRUM
 - Agile
 - Prototyping
 - 3D Printing
 - Precision Machining
 - CNC
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CONFERENCE PRESENTATIONS

"The Coanda Effect and Its Acoustic Applications"

Mathematical Association of America Spring 2014 Meeting, James Madison University
April 2014

"Design of a Climate Adaptable Solar Energy system using biomimetic inspiration from a lichen symbiosis"

Systems and Information Engineering Design Symposium (SIEDS), University of Virginia
April 2014

PUBLICATIONS

"Design of a Climate Adaptable Solar Energy system using biomimetic inspiration from a lichen symbiosis"

Systems and Information Engineering Design Symposium (SIEDS), 2014
April 2014

RESEARCH

Anechoic Coanda Effect Research

Harrisonburg, VA
October 2013 - May 2014

Assisted in Acoustic Engineering research and experimentation for Dr. Caroline Lubert in the James Madison University Mathematics Department. Research concerned the acoustic applications of the Coanda effect on oil nozzles inside of an anechoic chamber. Responsibilities involved: extensive use of LabView software, National Instruments (NI) measurement tools, microphone arrays, and Shadow photography for measuring flows and associated noise levels along a Coanda Surface.


Climate Adaptable Solar Energy System

Harrisonburg, VA
September 2012 - May 2014

Capstone project involving the creation of a solar energy prototype that would adapt to outside climate conditions to maximize energy output. Involved heavy use of 3D design and prototyping to construct the chassis, as well as heavy research and development to create Dye-Sensitized Solar Cells (DSSCs) using blackberry dye.

AWARDS





ISG Employee of the Month

Alion Science and Technology- Washington, DC

July 2015

For demonstrated excellence in client relations and significant contributions to PMS 400D4 DDG ship-building efforts.

2nd Place Best Presentation

Mathematical Association of America Spring 2014 Regional Meeting - James Madison University, Harrisonburg, VA

April 2014

For presentation of "The Coanda Effect and Its Acoustic Applications."

Eagle Scout Award

Boy Scouts of America - Washington, DC

April 2010

Independently led a group of over 40 volunteers on a multi-week Eagle Scout service project for the First Baptist Church in Chesterbrook, resulting in over 100 volunteered hours and a new memorial venue. Completed vigorous requirements for the Eagle Scout rank, including demonstrated excellence in leadership.

CERTIFICATIONS

Engineer-In-Training

National Council of Examiners for Engineering and Surveying (NCEES)

License 14-591-75

December 2013

PROFESSIONAL ORGANIZATIONS

Sigma Phi Delta: Professional Engineering Fraternity

Beta-Theta Chapter at James Madison University (Alumni)

Fall 2011 - Present

Co-founded chapter at James Madison University. Assumed multiple executive positions during undergraduate studies including Chief Engineer (a.k.a. president) and Secretary. Serving an alumni position as International Recruitment Chairmen, developing projects to improve localized and international recruitment efforts, and Convention Chairman for the 42nd bi-annual General Convention.

Sigma Alpha Lambda Honor Society

James Madison University

Fall 2011-Spring 2014

