Adam Christopher Heacock
Virginia Polytechnic Institute and State University

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Education

- **Bachelor of Science: Computer Engineering**, *expected graduation May 2016*
  - Virginia Polytechnic Institute and State University, Blacksburg, VA
  - **GPA: 3.20; in Major: 3.40**
  - Music Minor

Work Experience

- **GEON Technologies, LLC.**, Columbia, MD; Summer 2014-Present, *Intern*
  - Ported Applications designed in **MATLAB** to **Octave**, to ensure compatibility with Open Source software: Linux and Octave.
  - Created **Devices**, **Nodes**, **Components**, and **Waveforms** in **REDHAWK** Software Defined Radio platform using **Python** and **C++**.
  - Gained experience with **cross compilation** of software for ARM processor architecture.

- **Technology Assessment and Transfer, Inc.**, Millersville, MD; Summer 2013, *Intern*
  - Created new algorithms for the **white light inspection** of parts and comparison to CAD specifications.
  - Implemented the solution conducting Repeatability and Reproducibility studies.
  - Worked with precision parts created through **Ceramic Stereolithography**.
  - Created Quality Control reports which used dimensional thresholds to determine whether a part was suitable for use.

Related Coursework

- **Applied Software Design**
  - Design Graphical applications using Qt library in C++.
  - Design and implement multi-threaded and multi-process applications that rely on synchronization and communication mechanisms
- **Artificial Intelligence and Engineering Applications**
  - Formulate problems that involve knowledge representation and state-space search
  - Develop and analyze software that performs heuristic search
  - Develop algorithms and software for action planning, machine learning, natural language processing, and computer vision in constrained problem domains
- **Digital Design I**
  - Analyze and design synchronous sequential circuits
  - Use a hardware description language and industry-standard simulators to validate combinational and sequential circuits.
- **Signals and Systems**
  - Calculate the Fourier series and transform of a periodic signal.
  - Calculate the spectrum of a system using a Fourier Transform.
  - Solve a differential equation using the Laplace transform

Technical Skills

- MIPS Assembly
- C++/C, MATLAB, LabVIEW, Python
- FPGA using Verilog
- REDHAWK
- Geomagic Qualify/Control
- White Light 3D Scanning
- Microsoft Visual Studio
- Linux/Unix

Activities/Skills

- **Galileo Living/Learning Engineering Community: Committee Member** *2012-present*
  - Lived in a community with many other engineers
  - Formed study groups to learn material
  - ***Member of Service Learning Committee**; responsible for providing opportunities for others to serve the community*
- **Tang Soo Do Karate Organization: Head Instructor/Vice-President** *2012-present*
  - **Lifetime Member: International Tang Soo Do Federation** *2005-Present*
  - Taught classes of up to 25 students multiple times each week
  - Certified by federation as a tournament referee
  - Lead student black belts to help them become role models for younger students.

Awards/Honors

- 3rd Degree Black Belt
- Member of Virginia Tech Symphony Band 2012-present
- International Baccalaureate Diploma Recipient