

brandon amos. r sum .

Phone. (540) 947-1238 Email. bdamos@vt.edu

<http://bamos.github.io>

INTERESTS **Compiler, mobile, or security** research or development in **Linux**.

Seeking a PhD fellowship starting May 2014 or internship from May–August 2014.

EDUCATION **Virginia Polytechnic Institute and State University** Blacksburg, Virginia
B.S. Computer Science **August 2011 – May 2014**
• **Overall GPA:** 3.98/4.00 **Major GPA:** 4.00/4.00

RESEARCH **Virginia Tech Computer Science Department** Blacksburg, Virginia
EXPERIENCE *Undergraduate Research Assistant, Advisor - Dr. Layne Watson* **January 2013 – Present**
• Implement quasi-Newton stochastic optimization algorithm in **Fortran 95**.

Systems Software Research Group Blacksburg, Virginia
Undergraduate Research Assistant, Advisor - Dr. Binoy Ravindran **November 2012 – Present**
• Developed an automatic **OpenMP** to **CUDA** translator in **C++** with the **ROSE** compiler framework.
• **Scala** and **Bash** development in **Linux**.

Magnum Research Group Blacksburg, Virginia
Undergraduate Research Assistant, Advisor - Dr. Jules White **May 2012 – Present**
• Android **malware detection research** resulting in primary authorship on a conference publication.
• Working on a distributed **Actor** system using **Scala** for **machine learning** classification of APKs.
• **C++**, **Make**, and **Android source** development in **Linux**.

INDUSTRY **Qualcomm, Inc.** San Diego, California
EXPERIENCE *Source Integrity Team Software Intern* **May 2013 – August 2013**
• **js**, **C++**, and **Python** development in **Linux**.

Phoenix Integration, Inc. Blacksburg, Virginia
Software Engineer Intern **May 2012 – August 2012**
• Industrial software development using **VC++**, **VC#**, **Java**, **Tomcat**, **JUnit**, **NUnit**, **Ant**, and **Make**.

Sunapsys, Inc. Vinton, Virginia
Network Administrator Intern **January 2011 – August 2011**
• **Linux** server configuration and **Bash** development.

CONFERENCE • “Applying machine learning classifiers to dynamic Android malware detection at scale.”
PUBLICATIONS **Brandon Amos**, Hamilton Turner, Jules White.
IWCMC’13 Security, Trust, and Privacy Symposium. Cagliari, Italy, July 2013.
• “Fortran 95 implementation of QNSTOP for global and stochastic optimization.”
Brandon Amos, David Easterling, Layne Watson, Brent Castle, Michael Trosset, William Thacker.
Submitted.
• “Bad Parts: Are Our Manufacturing Systems At Risk of Silent Cyber-attacks?”
Hamilton Turner, **Brandon Amos**, Jules White, Jaime Camelio, Chris Williams, Robert Parker.
Submitted.

SKILLS **Preferred Tools:** Linux^{***}, vim/gdb^{***}, git^{***}, Make^{**}
Languages: Bash^{**}, C/C++^{**}, C#^{*}, Fortran^{**}, HTML/CSS^{*}, L^AT_EX^{**}, Java^{**}, JavaScript^{**},
Mathematica^{**}, PHP^{*}, Python^{***}, R^{*}, Scala^{**}

Rankings: 1/10^{*} – 3/10^{**} – 5/10^{***} – 7/10^{****}

PROJECTS **Personal Blog and Website** – <http://bamos.github.io> **July 2012 – Present**
• Hosted on GitHub Pages. Uses **Markdown** for posts and **Jekyll** for static HTML generation.
• **27 posts** across the following tags, listed by highest frequency.
Python, LaTeX, Bash, Scala, Linux, Android, CUDA, C++, Mathematica, Fortran

GitHub Portfolio – <http://github.com/bamos> **April 2011 – Present**
• Hosts code samples, original source code, and patches for open source projects.
• 18 original repositories.
• 5 forked repositories.

HONORS & **Sophomore Scholar Award**, Virginia Tech Computer Science, 2013
AWARDS • Given to the sophomore in Computer Science with the most outstanding academic record.
• **Intelligence Community Center of Academic Excellence Scholar**, Virginia Tech, 2012–2013
• Merit-based scholarship that provides a security-based research fellowship.
• **Engineering Scholarship**, Roanoke County Public Schools Education Foundation, 2011

- Pamplin Leader Scholarship, Virginia Polytechnic Institute and State University, 2011
 - Merit-based scholarship presented to one student from each public high school in Virginia.