brandon amos. rèsumè.

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http://bamos.github.io

Compiler, mobile, or security research or development in Linux. Interests

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

Virginia Polytechnic Institute and State University Blacksburg, Virginia **EDUCATION**

> B.S. Computer Science August 2011 - May 2014

> • Overall GPA: 3.98/4.00 Major GPA: 4.00/4.00

Virginia Tech Computer Science Department Research 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

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 EXPERIENCE Qualcomm, Inc.

San Diego, California

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.

Publications

Conference • "Applying machine learning classifiers to dynamic Android malware detection at scale."

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.

Magazine Publications

SKILLS

• "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.

Preferred Tools: Linux***, vim/gdb***, git***, Make**

Languages: Bash**, C/C++**, C#*, Fortran**, HTML/CSS*, LATEX**, 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, Linux, Scala, Android, Mathematica, C++, Fortran, CUDA

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 & AWARDS

- Sophomore Scholar Award, Virginia Tech Computer Science, 2013
 - 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.

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