

- Objective** To obtain a challenging full-time position in software development.
- Experience**
- Embedded Software Engineer** Northrop Grumman Sperry Marine  
Charlottesville, VA May 2007 – Present  
Developed software on Windows, Linux and embedded platforms for marine applications using C and C++. <http://www.sperrymarine.northropgrumman.com/>.
- Research Assistant** Dept. of Computer Science, UVA  
Charlottesville, VA June 2005 – May 2007  
Conducted computer security research using artificial diversity to thwart attacks. Developed modifications to the Linux kernel and worked with dynamic binary translators.
- Education**
- University of Virginia** Charlottesville, VA  
**M.C.S. Computer Science** May 2007  
G.P.A.: 3.87
- College of William & Mary** Williamsburg, VA  
**B.S. Computer Science** May 2004  
G.P.A.: 3.90 (*summa cum laude*)
- Qualifications**
- Domain Experience:** Embedded Real-Time Systems, Linux Kernel Development  
**Programming Languages:** C, C++, Java, x86 Assembly, Bourne Shell Scripts  
**Application Software:** GNU Tool-set, Emacs, Eclipse, Microsoft Visual Studio, L<sup>A</sup>T<sub>E</sub>X  
**Operating Systems:** Linux/Unix, Windows 9x/2000/XP
- Projects**
- Inertial Navigation Systems**  
Developed a Windows-based simulator to connect to the UK NATO Inertial Navigation System using the STANAG 4156 serial interface. Currently rewriting the STANAG 4156 driver for the UK NATO Inertial Navigation System to work with updated hardware.
- Navigation Data Distribution System**  
Added functionality to the Navigation Data Distribution to receive wind data over UDP/IP from the Moriah Wind System.
- Navipilot 4000**  
Added functionality to the Navipilot 4000 user interface to allow it to use a high speed craft control algorithm instead of the standard control algorithm.
- N-Variant Systems**  
Designed and implemented a Linux kernel modification to run artificially diversified variants of the same program simultaneously, ensuring that all variants make identical system calls and receive identical results from those system calls. See <http://www.cs.virginia.edu/nvariant>.
- Publications**
- Anh Nguyen-Tuong, David Evans, John Knight, Benjamin Cox, Jack W. Davidson. [Security through Redundant Data Diversity](#). In *38<sup>th</sup> IEEE/IFPF International Conference on Dependable Systems and Networks*, June 2008.
- Benjamin Cox, David Evans, Adrian Filipi, Jonathan Rowanhill, Wei Hu, Jack Davidson, John Knight, Anh Nguyen-Tuong, and Jason Hiser. [N-Variant Systems: A Secretless Framework for Security through Diversity](#). In *15<sup>th</sup> USENIX Security Symposium*, August 2006.
- David Coppit and Benjamin Cox. [Software Plans for Separation of Concerns](#). In *Proceedings of the Third AOSD Workshop on Aspects, Components, and Patterns for Infrastructure Software*, March 2004.
- Awards**
- Highest Honors, Department of Computer Science, College of William & Mary, 2004  
Awarded for the quality, complexity, and originality of my honors thesis on software plans.

Stephen K. Park Undergraduate Scholarship Award, 2004

Inaugural recipient of this award, granted for outstanding research by the Computer Science Department of the College of William & Mary.

Eagle Scout Award, Boy Scouts of America, 1997

Recognized by the Secretary of the Navy for organizing and leading a project making 25 rocking horses for the Marine Corps *Toys for Tots* Christmas benefit.

**References**

Available on request.