

David G Underhill

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EDUCATION

- Stanford University** *2007-Present*
- M.S. Computer Science, graduated with distinction in research (June 2009) (3.97 GPA)
 - Accepted to Ph.D. Computer Science program (2009)
- United States Naval Academy** *2003-2007*
- B.S. Computer Science, graduated with distinction (3.8 overall GPA, 4.0 major GPA)
- Computing Experience** – Linux; C, C++, Java, JavaScript, OpenGL, PHP, Python, SQL

RESEARCH, PRESENTATIONS, AND AWARDS

- ACM WiNTECH Workshop at MobiCom 2009**, Beijing, China *September 2009*
- The Stanford OpenRoads Deployment
- ACM SIGCOMM 2009**, Barcelona, Spain *August 2009*
- Best Demo Award: Carving Research Slices Out of Your Production Networks with OpenFlow
 - OpenPipes: Prototyping high-speed networking systems (demo)
- ACM/IEEE SC 2008**, Austin, TX *November 2008*
- Presented OpenFlow
- ACM SIGCOMM 2008**, Seattle, WA *August 2008*
- Best Demo Award: A Demonstration of Virtual Machine Mobility in an OpenFlow Network
 - 2nd Best Demo: *Experimenting with Programmable Routers in Real Networks*
- IEEE Information Reuse and Integration 2007**, Las Vegas, NV *August 2007*
- Presented *Enhancing Text Analysis via Dimensionality Reduction*
- Trident Scholar: Exploring Dimensionality Reduction for Text Mining** *2006-2007*
- 1 of 14 scholars. Researching the effects of dimensionality reduction on a corpus of documents and how faithfully they represent the relationships between documents.
- National Science Foundation Graduate Fellowship Honorable Mention** *March 2007*
- SANSFIRE Conference 2006**, Washington, DC *July 2006*
- Speaker on the NSA-organized panel for “Cyber Defense Exercise – Lessons Learned”

TEACHING EXPERIENCE

- Building an Internet Router**, TA, Stanford University *Spring 2009*
- Compilers**, Instructor, Stanford University *Summer 2008*
- Responsible for teaching and managing all course material, assignments, projects, and exams. Taught section once a week and held bi-weekly office hours in conjunction with the TA.
- Reasoning Methods in Artificial Intelligence**, TA, Stanford University *Spring 2008*
- Responsible for holding office hours and providing detailed feedback on student projects.
- Midshipmen Group Study Program Leader/Tutor** *2005-2006*

LEADERSHIP POSITIONS

Brigade Midshipmen Information Liaison Officer

Fall 2006-2007

- Developed and coordinated information systems utilized by the 4,000+ member brigade including introducing TV-over-IP, monitoring usage and problems with IT systems, creating a new website for the brigade, and developing a tool which could parse scheduling information for adjutant officers

Upsilon Pi Epsilon Vice President

Fall 2006-2007

- Computer Science honor society Vice President at the United States Naval Academy

Plebe Summer Squad Leader

Summer 2006

- Successfully led 10 new students through their initial military indoctrination

Cyber Defense Exercise Leader

Spring 2006

- Led 40 peers to design and defend a network against NSA attacks in an intra-service academy competition

INTERNSHIPS

Naval Surface Warfare Center Dahlgren Division, Dahlgren, VA

Summer 2006

- Learned about dimensionality reduction and implemented text mining tools for my Trident research. Self-taught linear algebra to understand the details of the algorithms.

Lawrence Livermore National Laboratory, Livermore, CA

Summer 2005

- Worked with a team of nuclear physicists to contribute to a thermal radiation transport module and implemented an opacity server for COSMOS++, a magnetohydrodynamics simulator. Also improved the thermal transport simulation so a time step of ran in minutes instead of a day.

VOLUNTEERING

Dound System

2004-2006

- Single-handedly and without prompting developed a software system used by over 1,000 Academy users to improve the efficiency of administrative tasks within the student body. The Academy's leadership placed it on its priority list for review and implementation across the whole student body.

Midshipmen Group Study Program Leader/Tutor

2005-2006

- Instructed groups of students on a weekly basis in Calculus and Computer Science

Soup Kitchen Volunteer

2000-2003

- Helped prepare and serve free meals for the homeless on Sunday mornings for the Manna Meal project