Doug Woos

3406 NW 57th St.
Seattle, WA
📞 +1 (405) 396 6788
✉ dwoos@cs.washington.edu
🖥 www.dougwoos.com

Education

2013–current	**PhD (in progress)**, *University of Washington*, Seattle, WA, 3.8 GPA.
2013–2015	**Master of Science**, *University of Washington*, Seattle, WA, 3.8 GPA.
2007–2011	**Bachelor of Arts**, *Swarthmore College*, Swarthmore, PA, 3.6 GPA (3.7 CS GPA). Honors Major Computer Science, Honors Minor Mathematics, Course Minor Philosophy

Research Interests

I am broadly interested in programming languages, systems, and networking. I am currently working on Verdi, a framework for formally verifying implementations of distributed systems.

Publications

Doug Woos, James R. Wilcox, Steve Anton, Zachary Tatlock, Michael D. Ernst, and Thomas Anderson. **Planning for Change in a Formal Verification of the Raft Consensus Protocol**. In *CPP 2015*, Jan 2015.

James R. Wilcox, Doug Woos, Pavel Panchekha, Zachary Tatlock, Xi Wang, Michael D. Ernst, and Thomas Anderson. **Verdi: A Framework for Implementing and Verifying Distributed Systems**. In *PLDI 2015*, June 2015.

Simon Peter, Jialin Li, Irene Zhang, Dan R. K. Ports, Doug Woos, Arvind Krishnamurthy, Thomas Anderson, and Timothy Roscoe. **Arrakis: The Operating System is the Control Plane**. In *OSDI 2014*, Oct 2014.

Simon Peter, Umar Javed, Qiao Zhang, Doug Woos, Thomas Anderson, and Arvind Krishnamurthy. **One Tunnel is (Often) Enough**. In *SIGCOMM 2014*, July 2014.

Simon Peter, Jialin Li, Doug Woos, Irene Zhang, Dan R. K. Ports, Thomas Anderson, Arvind Krishnamurthy, and Mark Zbikowski. **Towards High-Performance Application-Level Storage Management**. In *HotStorage 2014*, June 2014.

Tia Newhall and Douglas Woos. **Incorporating Network RAM and Flash into Fast Backing Store for Clusters**. In *IEEE Cluster 2011*, Sept 2011.

Talks and Teaching

Feb 2013	**A Programmer's View of Formal Logic**. Talk delivered to co-workers at GameChanger Media

Aug 2012	**Concurrency and MongoDB**.
	New York MongoDB User Group
Apr 2012	**Presplitting at GameChanger**.
	New York MongoDB User Group
2007–2011	**Using Unix**.
	Short introductory sessions for new CS students at Swarthmore College

Work Experience

2011–2013	**Engineer**, *GameChanger Media*, New York, NY.
	○ Developed an open-source Redis-backed queuing/scheduling library in Python
	○ Developed a Scheme-based DSL for baseball stats calculation
	○ Developed a custom system for code deployment
	○ Developed a MongoDB shard-key presplitting system
2007–2011	**System Administrator**, *Swarthmore College CS Dept.*, Swarthmore, PA.
	○ Installed and debugged software packages
	○ Debugged users' problems
	○ Taught new users how to use Linux
2004–2007	**Assistant Coach**, *Vermont Fencing Alliance*, Middlebury, VT.
	○ Helped beginning-to-intermediate fencers with drills
2005–2008	**Referee**, *United States Fencing Association*, Colorado Springs, CO.
	○ Refereed fencing matches at national tournaments

Awards and Honors

Apr 2015	**NSF Graduate Research Fellowship**.
Oct 2014	**Madrona Prize for Best Student Poster**, *UW CSE Industry Affiliates Meeting*.
	Arrakis: The Operating System is the Control Plane
Oct 2014	**Best Paper**, *OSDI 2014*.
	Arrakis: The Operating System is the Control Plane
Apr 2014	**NSF Graduate Research Fellowship Honorable Mention**.
Aug 2013	**UW Faithful Steward Fellowship**.

Service

2014–2015	**Social Co-Chair**, *UW CSE Graduate Student Committee*.
	Organize weekly graduate student events
2014–2015	**Graduate Student Mentor**.
	Advise three new graduate students on academics and life in general
Apr 2014	**Student Volunteer**, *NSDI 2014*, Seattle, WA.
	Took notes on poster session for publication in USENIX *;login:*

Technical proficiencies

| Languages | C, Python, Lisp, Coq, Javascript, Objective-C, C#, VB.NET, Java |

Other Technologies	Linux, Mac OS X, iOS, Nginx, Apache, Git, jQuery, QEMU, MongoDB, Redis, Django, Tornado, Emacs

Interests

Amateur astronomy, philosophy, baseball statistics, science fiction, fencing

References

Available upon request.