

Kevin P. Dyer

CONTACT INFORMATION	Department of Computer Science PO Box 751 Portland State University Portland, OR, 97207, USA	<i>E-mail:</i> kdyer {at} cs {dot} pdx {dot} edu <i>WWW:</i> kpdyer.com
RESEARCH INTERESTS	Cryptography, Computer Security, Traffic Flow Confidentiality, Traffic Analysis	
EDUCATION	Portland State University , Portland, Oregon, USA Ph.D. in Computer Science Expected completion: <i>06/2014</i> Advisor: Thomas Shrimpton	<i>09/2010 - Present</i>
	Royal Holloway, University of London , Egham, UK MSc in Mathematics of Cryptography and Communications Thesis: <i>Cryptanalysis of the SHA Family of Hash Functions</i> Advisor: Sean Murphy	<i>2007</i>
	Santa Clara University , Santa Clara, CA, USA B.S. in Computer Science with Mathematics Study abroad: Mzuzu University, Malawi, Africa (<i>07/2005 - 12/2005</i>)	<i>2006</i>
PUBLICATIONS	Dyer K.P., Coull S.E., Ristenpart T., Shrimpton T. <i>Peek-a-Boo, I Still See you: Why Traffic Analysis Countermeasures Fail</i> , To appear at IEEE Security and Privacy 2012 Dyer, K.P. and Schaefer, E.F. <i>Linear cryptanalysis of two round 16 step MD5 over the rationals</i> , Proceedings of the Southern African Mathematical Sciences Association, 2005	
HONORS AND AWARDS	Portland State University Dean's Scholarship, <i>2010-2011</i> Santa Clara University The George W. Evans II Research Memorial Prize, <i>2006</i> Mathematics Department Summer Research Grant, <i>2005</i> University Academic Scholarship, <i>2004 - 2006</i> Jean Donovan Fellowship, <i>2005</i> Center for Science and Technology in Society Grant, <i>2005</i> Dean's Grant, <i>2005</i> Provost Award, <i>2005</i>	
ACADEMIC EXPERIENCE	Portland State University <i>Teaching Assistant</i> Winter 2011, Algorithms and Complexity • Responsibilities: grading, office hours Fall 2010, Elements of Software Engineering • Responsibilities: grading, office hours, occasional lecture, setting assignments	

PROFESSIONAL
EXPERIENCE

NDS, Staines, UK

Senior Software Engineer

July 2008 - August 2010

Projects:

- Senior developer in a team responsible for LocateTV.com (1.5M visitors/month), an interactive TV Guide website, using **Apache**, **PHP**, **Java**, **Oracle**, **CSS** and **jQuery**. Collaborated with other developers to perform site redesign, infrastructure improvements and implement features requested by senior management, and enhance server-side performance on Amazon Web Services with Linux using **memcached**.
- Developer in a team responsible for bug-fixing, integration and quality assurance of a web-based PC video playback solution with proprietary DRM, using **C++** and **Python** on Windows XP/Vista.
- Responsible for developing a core reporting component of a Media Management application for a large TV provider, using **Java** and **XML**.

Additional Responsibilities:

- Reviewed cryptographic patents for technical novelty and existence of previous art, prior to submission to patent attorneys.

Imagineer Systems, Guildford, UK

Software Engineer

September 2007 - July 2008

- Responsible for development and quality assurance of cross-platform VFX suite for HD video playback and movie/television post-production using **C++**, **Qt** and **PostgreSQL**. Demonstrated initiative by identifying and resolving fundamental performance bottlenecks and security flaws in client-server infrastructure. Presented summary of team progress at bi-weekly **Scrum** sprint reviews.

Connect Express Consultants, Staines, UK

Software Engineer (Contract, Part-time)

October 2006 - April 2007

- Responsible for technical decisions and development of cross-platform SMS-to-email gateway using **C++** and **Perl**. Worked closely with proprietor and customers to implement bespoke network monitoring solutions and modules for **Asterisk** open-source PBX.

OuterBay Technologies, Cupertino, CA, USA

Junior Systems Administrator (Part-time)

October 2001 - April 2004

- Worked closely with IT manager to maintain critical corporate technical infrastructure. Provided desktop support during working hours, and on-call support during nights and weekends. Collaborated with marketing as sole webmaster to implement designs for corporate website and intranet.