

# Paul Pearce

pearce@cs.berkeley.edu  
1-909-223-5984  
<https://www.eecs.berkeley.edu/~pearce/>

---

## EDUCATION

---

### University of California, Berkeley

PhD Candidate, Computer Science

*Advised by Vern Paxson*

*Expected Graduation: Fall 2017*

Aug 2010–Present

### University of California, Berkeley

Bachelor of Science, Electrical Engineering and Computer Science

*Highest Honors Distinction*

Selected Courses: Computer Security: A, Operating Systems: A, Networking: A, Programming Languages: A+

Aug 2007–Dec 2009

Graduating GPA: 3.973

### Chaffey and Mt San Antonio Community Colleges

Worked with C and Java while studying computer science fundamentals.

Jan 2004–Jun 2007

Graduating GPA: 4.00

---

## Publications

---

**P. Pearce**, B. Jones, F. Li, R. Ensafi, N. Weaver, N. Feamster, V. Paxson, “Global Measurement of DNS Manipulation”, *26th USENIX Security Symposium (USENIX)*, Aug 2017

R. Singh, R. Nithyanand, S. Afroz, **P. Pearce**, M. C. Tschantz, P. Gill, V. Paxson, “Characterizing the Nature and Dynamics of Tor Exit Blocking”, *26th USENIX Security Symposium (USENIX)*, Aug 2017

**P. Pearce**, R. Ensafi, F. Li, N. Feamster, V. Paxson, “Augur: Internet-Wide Detection of Connectivity Disruptions”, *38th IEEE Symposium on Security and Privacy (Oakland)*, May 2017

B. Farinholt, M. Rezaeirad, **P. Pearce**, H. Dharmdasani, H. Yiny, S. Le Blond, D. McCoy, K. Levchenko, “To Catch a Ratter: Monitoring the Behavior of Amateur DarkComet RAT Operators in the Wild”, *38th IEEE Symposium on Security and Privacy (Oakland)*, May 2017

K. Thomas, E. Bursztein, C. Grier, G. Ho, N. Jagpal, A. Kapravelos, D. McCoy, A. Nappa, V. Paxson, **P. Pearce**, N. Provos, M. A. Rajab, “Ad Injection at Scale: Assessing Deceptive Advertisement Modifications”, *36th IEEE Symposium on Security and Privacy (Oakland)*, May 2015. ***Distinguished Practical Paper***

**P. Pearce**, V. Dave, C. Grier, K. Levchenko, S. Guha, D. McCoy, V. Paxson, S. Savage, G. M. Voelker, “Characterizing Large-Scale Click Fraud in ZeroAccess”, *21st ACM Conference on Computer and Communications Security (CCS)*, Nov 2014

**P. Pearce**, C. Grier, V. Paxson, V. Dave, D. McCoy, G. M. Voelker, and S. Savage. “The ZeroAccess Auto-Clicking and Search-Hijacking Click Fraud Modules.” *Technical report, EECS Department, University of California, Berkeley, Dec 2013.*

**P. Pearce**, G. Nunez, A. P. Felt, and D. Wagner, "AdDroid: Privilege Separation for Applications and Advertisers in Android", *7th ACM Symposium on Information, Computer and Communications Security (ASIACCS)*, May 2012

B. Miller, **P. Pearce** and C. Grier, C. Kreibich, V. Paxson, "What's Clicking What? Techniques and Innovations of Today's Clickbots", *8th Conference on Detection of Intrusions and Malware & Vulnerability Assessment (DIMVA)*, Jul 2011.

J. A. Colmenares, S. Bird, H. Cook, **P. Pearce**, D. Zhu, J. Shalf, K. Asanovic, and J. Kubiawicz. "Resource Management in the Tessellation Manycore OS", *USENIX Workshop on Hot Topics in Parallelism (HotPar)*, Jun 2010.

K. Klues, B. Rhoden, D. Zhu, **P. Pearce**, E. Brewer, J. Kubiawicz. Abstractions for Scalable Operating Systems on Manycore Architectures. Work-In-Progress, Poster, *22nd ACM Symposium on Operating Systems Principles (SOSP)*, Oct 2009.

---

## AWARDS AND HONORS

---

<b>CS Outstanding Graduate Student Instructor Award</b>	Apr 2014
<b>NSF Honorable Mention (Operating Systems and Middleware)</b>	Apr 2011
<b>GAANN Fellowship</b>	Aug 2010 - May 2011
<b>Eugene L. Lawler Prize</b>	Jun 2010
<b>Fong Family Scholarship</b>	May 2009
<b>Eta Kappa Nu Member and Officer</b>	May 2008 - Present
<b>AMATYC Student Mathematics League Award</b>	May 2007
<b>Jack White Engineering Physics Award</b>	May 2006
<b>Arthur E. &amp; Gladys P. Flum Award</b>	May 2006
<b>First Place, ProgFest Team Programming Competition</b>	Feb 2006
<b>First Place, ACM Regional Programming Competition, Community College Div.</b>	May 2005

---

## TEACHING

---

**Teaching Assistant, Computer Security (CS161)** Berkeley, CA  
*University of California, Berkeley under Professor Vern Paxson*  
Jan 2013–May 2013  
Managed two discussion sections per week. Generated new content for homework's, projects, lectures, and exams.  
*Student evaluation Overall Teaching effectiveness: 4.9/5*

**Instructor, Machine Structures (CS61C)** Berkeley, CA  
*University of California, Berkeley*  
Jun 2010–Aug 2010  
Responsibilities included all lectures, course content, and administrative matters for 100 students.  
*Student Evaluation Overall Teaching Effectiveness of Instructor: 6.3/7*  
*Student Evaluation Overall Worthwhileness of the Course: 6.4/7*

**Teaching Assistant, Machine Structures (CS61C)** Berkeley, CA  
*University of California, Berkeley under Lecturer Dan Garcia*  
May 2009–Aug 2009  
Managed four labs and one discussion section each week. Was responsible for a CPU design project, several homeworks, and two lectures.  
*Student evaluation Overall Teaching effectiveness: 4.8/5*

---

## TALKS & LECTURES

---

<b>Characterizing Large-Scale Click Fraud in ZeroAccess</b> <i>21st ACM Conference on Computer and Communications Security (CCS)</i>	Scottsdale, AZ Nov 2014
<b>Monetizing ZeroAccess: Inside the ZA-hosted Click-fraud Malware</b> <i>Microsoft Digital Crimes Consortium 2014</i>	Singapore Mar 2014
<b>Malware</b> <i>Guest lecture for CS161: Computer Security</i>	Berkeley, CA Jan 2014
<b>Internet Freedom</b> <i>Guest lecture for CS161: Computer Security</i>	Berkeley, CA April 2013
<b>Addroid: Privilege Separation for Applications and Advertisers in Android</b> <i>7th ACM Symposium on Information, Computer and Communications Security</i>	Seoul, SK May 2012
<b>What's Clicking What? Techniques and Innovations of Today's Clickbots</b> <i>8th Conference on Detection of Intrusions and Malware &amp; Vulnerability Assessment</i>	Amsterdam, NL Jul 2011
<b>Machine Structure (CS61C), 25 Lectures as Instructor</b> <i>Undergraduate Course</i>	Berkeley, USA Jun-Aug 2010

---

## WORK & EXPERIENCE

---

<b>Microsoft Research Silicon Valley</b> <i>Research Intern with Yinglian Xie</i>	Mountain View, CA May 2012–Aug 2012
<b>University of California, Berkeley</b> <i>Graduate Student Researcher under Professors David Wagner and Vern Paxson</i> Actively researching advertising fraud, malware, botnets, and Internet crime.	Berkeley, CA Aug 2010–Present
<b>University of California, Berkeley</b> <i>Researcher, Parallel Computing Lab Tessellation Project under Professor John Kubiatoiwicz</i> Helped to design and implement the Tessellation manycore OS. Responsibilities included implementation of file-I/O functionality, various network and PCI device drivers and interfaces, as well as hardware interrupt control.	Berkeley, CA Jan 2009–Jun 2010
<b>University of California, Berkeley</b> <i>Research Assistant, StatNews Research Project under Professor Laurent El Ghaoui</i> Primary responsibility was to take the core (python) algorithm used to compute word associations, and rewrite the algorithm to exploit parallelism across a small cluster, as well as migrating the project to a SQL database.	Berkeley, CA June 2008–Dec 2008
<b>Chaffey Community College Institutional Services</b> <i>Supplemental Instruction Leader</i> Independently designed and conducted supplemental instruction sessions for multiple engineering physics courses.	Rancho Cucamonga, CA Aug 2006–Jun 2007
<b>Chaffey Community College Math Success Center</b>	Rancho Cucamonga, CA

*Instructional Assistant*

Dec 2005–Jun 2007

Collaborated with peers and faculty members to aid students in the learning of material from arithmetic to calculus.

---

**SERVICE**

---

**Computer Science Graduate Student Association (CSGSA) President**

*University of California, Berkeley*

Berkeley, CA

May 2013 – May 2014

**Computer Science Graduate Student Association (CSGSA) Officer**

Faculty Liaison, Lounge Coordinator, Social Committee

*University of California, Berkeley*

Berkeley, CA

Aug 2010 – Present

**Student Member, EECS Department Undergraduate Study Committee**

*University of California, Berkeley*

Berkeley, CA

Aug 2009 – Jun 2011