

Alexandra Papoutsaki

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Education

- 2017 **Ph.D. in Computer Science**
Brown University
Dissertation: Democratizing Eye Tracking
Advisor: Jeff Huang
- 2013 **M.Sc. in Computer Science**
Brown University
Advisor: Benjamin Raphael
- 2011 **B.Sc. in Computer Science**
Athens University of Economics and Business

Experience

- Sept **Assistant Professor**
2017–Present Department of Computer Science, Pomona College
- July–Sept **Instructor of Computer Science**
2017 Department of Computer Science, Pomona College

Honors & Awards

- 2017 **Prize** Brown Chapter Of Sigma Xi
- 2017 **Runner Up**, Best Paper award, ACM SIGIR Conference on Human Information Interaction & Retrieval (CHIIR)
- 2015 **Runner Up**, Best Paper award, AAAI Conference on Human Computation and Crowdsourcing (HCOMP)
- 2013 **Best Paper Award**, Annual International Conference on Research in Computational Molecular Biology (RECOMB)
- 2012 **Scholarship** Gerondelis Foundation(\$4000)
- 2011, 2016 Kanellakis Fellowship
Travel Funds: WIT 2012, CHI 2015, HCOMP 2015, GHC 2016

Teaching Experience

- Spring 2018 **Instructor** -User Interfaces and User Experience (CS 124)
Pomona College, students: 24
- Spring 2018 **Co-Instructor** -Data Structures and Advanced Programming (CS 062)
Pomona College, students: 29
- Fall 2017 **Instructor** -User Interfaces and User Experience (CS 124)
Pomona College, students: 18
- Fall 2017 **Co-Instructor** - Data Structures and Advanced Programming (CS 062)
Pomona College, students: 36
- Fall 2016 **Co-Instructor** - Topics in 2D Game Engines (CSCI 1950N)
Brown University, students: 16
- Fall 2015 **Instructor** - Intro to Computation for Humanities and Social Sciences (CSCI 0931)
Brown University, students: 17
- Spring 2015 **Teaching Assistant** - Human Computer Interaction Seminar (CSCI 2300)
Brown University, students: 21
- Spring 2014 **Teaching Assistant** - Human Computer Interaction Seminar (CSCI 2951-L)
Brown University, students: 19
- 2012–2013 **Teaching Assistant** - Android Development Workshop for High School Students
Brown Computer Science without Borders Teaching & Providence After School Alliance

Teaching Development

Center for Teaching & Learning, Pomona College.

- 2017–now **First5** Faculty Learning Community, various workshops
Teaching Certificates by the Sheridan Center for Teaching & Learning, Brown University.
- 2015–2016 **Certificate II:** The Course Design Seminar - Principles + Practice
- 2014–2015 **Certificate III:** The Professional Development Seminar
- 2012–2014 **Certificate I:** Sheridan Teaching Seminar - Reflective Teaching

Mentoring Experience

- 2017–2018 Chinasa Okolo - Pomona College
- 2017–2018 Alexander Clemens - Pomona College
- 2016–2018 Aaron Gokaslan - Brown University - now MSc at Brown University
- 2015–2016 James Laskey - Brown University - now at Google
- 2014–2015 Patsorn Sangkloy - Brown University - now PhD at Georgia Tech
- 2014–2015 Danae Metaxa-Kakavouli - Brown University - now PhD at Stanford University

Publications

Conference Proceedings

- [C.1] **A. Papoutsaki**, A. Gokaslan, J. Tompkin, Y. He, J. Huang. (2018). The Eye of the Typer: A Benchmark and Analysis of Gaze Behavior during Typing. *Proceedings of the Tenth Biennial ACM Symposium on Eye Tracking Research & Applications (ETRA)* (to appear)
- [C.2] **A. Papoutsaki**, J. Laskey, J. Huang. (2017). SearchGazer: Scalable Webcam Eye Tracking for Remote Studies of Web Search. *Proceedings of the ACM SIGIR Conference on Human Information Interaction & Retrieval (CHIIR)*. [42% acceptance rate]
Best Paper Award Runner Up
- [C.3] **A. Papoutsaki**, P. Sangkloy, J. Laskey, N. Daskalova, J. Huang, J. Hays. (2016). WebGazer: Scalable Eye Tracking Using User Interactions. *Proceedings of the 25th International Joint Conference in Artificial Intelligence (IJCAI)*. [25% acceptance rate]
- [C.4] **A. Papoutsaki**, H. Guo, D. Metaxa-Kakavouli, C. Gramazio, J. Rasley, W. Xie, G. Wang, J. Huang. (2015). Crowdsourcing from Scratch: A Pragmatic Experiment in Data Collection by Novice Requesters. *Proceedings of the 3rd AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*. [30% acceptance rate]
Best Paper Award Runner Up
- [C.5] F. Vandin, **A. Papoutsaki**, B.J. Raphael, E. Upfal. (2013). Genome-Wide Survival Analysis of Somatic Mutations in Cancer. *Proceedings of the 17th Annual International Conference on Research in Computational Molecular Biology (RECOMB)*. [19% acceptance rate]
Best Paper Award

Journal Articles

- [J.1] J. Qian, A. Chapin, **A. Papoutsaki**, F. Yang, K. Nelisson, J. Huang. (2018) Remotion: A Motion-Based Capture and Replay Platform of Mobile Device Interaction for Remote Usability Testing. *ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, (to appear)
- [J.2] N. Daskalova, K. Desingh, **A. Papoutsaki**, D. Schulze, J. Sha, J. Huang. (2017) Lessons Learned from Two Cohorts of Personal Informatics Self-Experiments. *ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 1(3), 46
- [J.3] F. Vandin, **A. Papoutsaki**, B.J. Raphael, E. Upfal. (2015). Accurate Computation of Survival Statistics in Genome-Wide Studies. *Plos Comput Biol*, 11(5) e1004071
- [J.4] M.D.M. Leiserson, F. Vandin, H-T. Wu, J.R. Dobson, J.V. Eldridge, J.L. Thomas, **A. Papoutsaki**, Y. Kim, B. Niu, M. McLellan, M.S. Lawrence, A. Gonzalez-Perez, D. Tamborero, Y. Cheng, G.A. Ryslik, N. Lopez-Bigas, G. Getz, L. Ding, B.J. Raphael. Pan-cancer network analysis identifies combinations of rare somatic mutations across pathways and protein complexes. (2015). *Nature Genetics*. 47(2): 106-114

Doctoral Consortiums

- [D.1] **A. Papoutsaki.** (2015). Scalable Webcam Eye Tracking by Learning from User Interactions. *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems (CHI 2015)*

Service

Program Committees

- SIGIR Proceedings of the ACM SIGIR Conference on Research and Development in Information Retrieval, 2018
- CWIC-SoCal SoCal Celebration of Women in Computing, 2018
- CHIIR Proceedings of the ACM SIGIR Conference on Human Information Interaction and Retrieval, 2018
- HCOMP AAI Conference on Human Computation and Crowdsourcing, 2016

Reviewing

- CHIIR ACM SIGIR Conference on Human Information Interaction and Retrieval, 2017
- CHI ACM CHI Conference on Human Factors in Computing Systems, 2015–2017
- WWW International World Wide Web Conference, 2015
- HCOMP AAI Conference on Human Computation and Crowdsourcing, 2014
- IJHCI International Journal of Human-Computer Interaction, 2014

Leadership

- 2016–2017 Diversity Committee Representative, Brown University
- 2015–2017 Mentor for undergraduate female CS students, Brown University
- 2015–2017 Sheridan Center for Teaching and Learning, Departmental Liaison, Brown University
- 2015 Computer Science Graduate Student Recruitment, Coordinator, Brown University
- 2012–2014 President of the Hellenic Students Association, Brown University
- 2012–2013 Brown Computer Science without Borders Teaching, Brown University & Providence After School Alliance

Open-Source Software and Public Datasets

- 2018 *Eye of The Typer: A Benchmark and Analysis of Gaze Behavior during Typing* [C.1]
Website: <https://webgazer.cs.brown.edu/data/>
- 2017 *SearchGazer: Webcam Eye Tracking for Remote Studies of Web Search* [C.2]
Source: <https://github.com/brownhci/searchgazer/>
- 2016 *WebGazer.js: Democratizing Webcam Eye Tracking on the Browser* [C.3]
Source: <https://github.com/brownhci/WebGazer>
- 2015 *Computer Science Faculty Dataset: Academic development of 3600 faculty from 100 top US and Canadian Universities* [C.34]
Dataset: <http://drafty.cs.brown.edu/professors>

2013 *Exalt*: Accurate Genome-Wide Survival Analysis [C.5]
Source: <http://compbio.cs.brown.edu/projects/survival>

Press and Media Coverage

WebGazer.js [C.3]

- March 2018 **Fortune** - This Scientist Wants to Democratize Eye Tracking. <http://fortune.com/2018/03/20/eye-tracking-webgazer/>
- June 2016 **HackerNews** - WebGazer.js: Eye Tracking on the Browser. <https://goo.gl/Kk0V86>
- June 2016 **PCWorld** - Web developers, meet WebGazer: software that turns webcams into eye-trackers. <http://goo.gl/m0U090>
- June 2016 **Reddit** - Webgazer.js, eye tracking library using the webcam that can be put on any website. <https://goo.gl/ebUZU6>
- June 2016 **Softpedia** - WebGazer Uses JavaScript and Your Webcam to Track Eye Movements. <http://goo.gl/PLeHKV>
- June 2016 **TechXplore** - Software turns webcams into eye-trackers. <http://goo.gl/1aNiGR>
- June 2016 **The Register** - Brown boffins brew eye-tracking Javascript. <https://goo.gl/sy1JgC>

Faculty Dataset [C.4]

- June 2016 **Computer Science Rankings** <http://csrankings.org>
- June 2014 **CSAIL MIT** - Ranking of CS Departments based on the Number of Papers in Theoretical Computer Science. <http://projects.csail.mit.edu/dnd/ranking>
- June 2014 **Keshif** - Faculty in 50 Top US Computer Science Departments. http://keshif.me/demo/cs_faculty
- May 2014 **Reddit** - Brown's Jeff Huang And 19 Students Crowdsource A Dataset Of 2,200 CS Faculty In 16 Days. <https://goo.gl/WIrJKN>