

# 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

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## Experience

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

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## 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

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## Teaching Experience

- Spring 2019 **Instructor** - User Interfaces and User Experience (CS 124)  
Pomona College, students: 24
- Spring 2019 **Co-Instructor** - Introduction to Computer Science with Topics in Artificial Intelligence (CS 051-A)  
Pomona College, students: 20
- Spring 2019 **Co-Instructor** - Data Structures and Advanced Programming (CS 062)  
Pomona College, students: 26
- Fall 2018 **Instructor** - Computer Science Senior Seminar (CS 190, Sections 4 and 5)  
Pomona College, students: 20
- Fall 2018 **Co-Instructor** - Data Structures and Advanced Programming (CS 062)  
Pomona College, students: 27
- 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

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## 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

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## Mentoring/Advising Experience

- 2018–now Ieva Burk - Claremont McKenna College
- 2018–now Amy Buswell - Pomona College
- 2018–now Caroline Chou - Claremont McKenna College
- 2018–now Ethan Hardacre - Pomona College
- 2018–now Grete Helena Kütt - Pomona College
- 2018–now Matthew Paik - Pomona College
- 2018–now Maya Varghese - Pomona College
- 2018–now Zihao Xu - Pomona College
- 2018 Kevin Lee - Pomona College
- Fall 2018 Lemuel Lan - Pomona College
- Spring 2018 Alexander Clemens - Claremont McKenna College
- Spring 2018 Elvis Kahoro - Pomona College
- Spring 2018 Chinasa Okolo - Pomona College - now PhD at Cornell University
- 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

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## Publications

### Conference Proceedings

- [C.6] G. H. Kütt\*, K. Lee\*, E. Hardacre\*, **A. Papoutsaki**. (2019). Eye-Write: Gaze Sharing for Collaborative Writing. *To appear at Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI)*. [24% acceptance]
- [C.5] **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)*. [34% acceptance]
- [C.4] **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]  
**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]

- [C.2] **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]

**Best Paper Award Runner Up**

- [C.1] 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]

**Best Paper Award**

#### Journal Articles

- [J.4] 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*, 2(2), 77
- [J.3] N. Daskalova, K. Desingh, **A. Papoutsaki**, D. Schulze\*\*, H. 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.2] 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.1] 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)*

\* Papers co-authored with Pomona College undergraduate students

\*\* Papers co-authored with Brown University undergraduate students

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## Leadership

### Program Committees

- ETRA ACM Symposium on Eye Tracking Research and Applications (Eye Tracking for the (ETWEB) Web track), 2019
- SIGIR ACM SIGIR Conference on Research and Development in Information Retrieval, 2018–2019

- CHIIR ACM SIGIR Conference on Human Information Interaction and Retrieval, 2018–2019  
CWIC-SoCal SoCal Celebration of Women in Computing, 2018  
HCOMP AAAI 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 AAAI Conference on Human Computation and Crowdsourcing, 2014  
IJHCI International Journal of Human-Computer Interaction, 2014

#### Service

- 2018–now Teaching and Learning Committee, Pomona College  
2018–now Coordination of Tech for Good chapter, Pomona College  
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

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## Open-Source Software and Public Datasets

- 2018 *Eye of The Typer: A Benchmark and Analysis of Gaze Behavior during Typing* [C.5]  
Website: <https://webgazer.cs.brown.edu/data/>
- 2017 *SearchGazer: Webcam Eye Tracking for Remote Studies of Web Search* [C.4]  
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.2]  
Dataset: <http://drafty.cs.brown.edu/professors>
- 2013 *Exalt: Accurate Genome-Wide Survival Analysis* [C.1]  
Source: <http://compbio.cs.brown.edu/projects/survival>

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## 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 \[C.2\]](#)
- 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](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>