

Alexandra Papoutsaki

*Associate Professor of Computer Science
Pomona College*

185 East Sixth Street
Claremont, CA 91711

☎ (909) 607-0969

✉ apaa2017@pomona.edu

🌐 www.cs.pomona.edu/~apapoutsaki

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

- 2023–Present **Associate Professor**
Department of Computer Science, Pomona College
- 2017–2023 **Assistant Professor**
Department of Computer Science, Pomona College
- June 2020–
May 2021 **Visiting Assistant Researcher**
Department of Informatics, University of California Irvine

Honors & Awards

- 2021 **ICTS Pilot Study Award**, University of California Irvine: A Feasibility Study of an Innovative Informatics Application that Facilitates Tapering of Psychiatric Medications Through Patient-Reported Outcomes and Shared Decision-Making (\$25,000)
co-I (with PI Daniel A. Epstein and co-I Bryan Shapiro)
- 2020 **Research Experiences for Undergraduates Supplement**, NSF CRII: CHS: RUI: Gaze Sharing to Support Remote Collaboration (\$16,000)
sole PI
- 2020 **Teaching Award**, Pomona Wig Distinguished Professor award for excellence in teaching
- 2020 **Research Grant**, NSF CRII: CHS: RUI: Gaze Sharing to Support Remote Collaboration (\$105,572)
sole PI

- 2017 **Prize**, Brown Chapter Of Sigma Xi
- 2017 **Best Paper Award Runner Up**, ACM SIGIR Conference on Human Information Interaction & Retrieval (CHIIR)
- 2015 **Best Paper Award 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 **Fellowship**, Kanellakis
- 2012–2016 **Travel Funds**, WIT 2012, CHI 2015, HCOMP 2015, GHC 2016

Teaching Experience

- Fall 2024 **Instructor** - Data Structures and Advanced Programming (CS 062)
Pomona College, students: 34
- Spring 2024 **Instructor** - Data Structures and Advanced Programming (CS 062)
Pomona College, students: 39
- Fall 2023 **Instructor** - Data Structures and Advanced Programming (CS 062)
Pomona College, students: 38
- Fall 2023 **Instructor** - Computer Science Senior Seminar (CS 190, Section 5)
Pomona College, students: 14
- Spring 2023 **Instructor** - Introduction to Computer Science with Topics in Artificial Intelligence (CS 051-A, sections I and II)
Pomona College, students: 67
- Spring 2022 **Instructor** - User Interfaces and User Experience (CS 124)
Pomona College, students: 28
- Spring 2022 **Co-Instructor** - Introduction to Computer Science with Topics in Artificial Intelligence (CS 051-A, sections I and II)
Pomona College, students: 61
- Fall 2021 **Instructor** - User Interfaces and User Experience (CS 124)
Pomona College, students: 30
- Fall 2021 **Co-Instructor** - Data Structures and Advanced Programming (CS 062)
Pomona College, students: 31
- Spring 2020 **Co-Instructor** - Data Structures and Advanced Programming (CS 062)
Pomona College, students: 32
- 2019–2020 **Instructor** - Computer Science Senior Seminar (CS 190, Sections 1–4)
Pomona College, students: 41
- 2019–2020 **Instructor** - Computer Science Colloquium (CS 188)
Pomona College, students: 42

- Fall 2019 **Co-Instructor** - Data Structures and Advanced Programming (CS 062)
Pomona College, students: 38
- Spring 2019 **Instructor** - User Interfaces and User Experience (CS 124)
Pomona College, students: 23
- Spring 2019 **Co-Instructor** - Introduction to Computer Science with Topics in Artificial Intelligence (CS 051-A)
Pomona College, students: 23
- Spring 2019 **Co-Instructor** - Data Structures and Advanced Programming (CS 062)
Pomona College, students: 32
- 2018–2019 **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

Professional Development

- Fall 2021 **Cultural Competence in Computing (3C) Fellows Program - Cohort 2**
Identity in Computing Lab, Duke University
- 2020–2022 **DEI Cohort 2**
Pomona College
Identity in Computing Lab, Duke University

- 2020 **Collective Learning Workshop Series**
Movement Consulting
- 2017–now **First5** Faculty Learning Community, various workshops
Center for Teaching & Learning, Pomona College.
- 2012–2016 **Teaching Certificates I, II, and III**
Sheridan Center for Teaching & Learning, Brown University.

Advising

Research Students

- 2024–2025 Ulas Ayyilmaz
- 2023–2024 Andrew Han, Eryn Ma, Ella Zhu
- 2022–2023 Priya Dixit, Andrew Han, Eryn Ma
- 2021–2022 Priya Dixit, Andrew Han, Eryn Ma, Nicholas Marsano, Brooke Sparks
- 2020–2021 Priya Dixit, Aidan Garton, Georgia Kenderova, Chanha Kim, Alexander Koo, Nicholas Marsano, Maxwell Rose, Samuel So, Brooke Sparks, Ashley Sun, Lucas Tiangco
- 2019–2020 David Carroll, Georgia Kenderova, Chanha Kim, Alexander Koo, Grete Helena Kütt, Kevin Lee, Maxwell Rose, Samuel So
- 2018–2019 Grete Helena Kütt, Kevin Lee, Bernardo Moyza, Jay Rodolitz
- 2017–2018 Ethan Hardacre, Grete Helena Kütt, Kevin Lee

Senior Theses/Projects Advising

- 2021–2022 Ilana Shapiro - Senior Project
- 2018–2019 Zihao Xu - Math Thesis - First reader
- 2018–2019 Ieva Burk - CMC Math Thesis - Second reader
- 2018–2019 Amy Buswell, Caroline Chou - Senior Project - First reader
- 2017–2018 Alexander Clemens, Chinasa Okolo - Senior Project - First reader

Independent Studies

- Fall 2024 Chau Vu
- SURP 2024 Caleb Kim, Camden Le, Tara Mukund, Chau Vu, Haram Yoon
- 2023–2024 Julianne Louie, Tara Mukund, Chau Vu
- SURP 2023 Ella Zhu
- Spring 2022 Stefanos Stoikos
- Fall 2021 Priya Dixit, Andrew Han, Eryn Ma, Brooke Sparks
- RAISE 2021 Marghi Adreassi
- RAISE 2020 Stefanos Stoikos, Ino Tsichrintzi
- Spring 2020 Samuel So
- Spring 2019 Isys Johnson, Emma Sheridan, Mui Tanprasert

Fall 2018 Lemuel Lan, Matthew Paik
Spring 2018 Elvis Kahoro

Academic Advising

2024–2025 34 advisees
2023–2024 42 advisees
Spring 2023 26 advisees
2021–2022 28 advisees
Spring 2020 24 advisees
2019–2020 19 advisees
2018–2019 23 advisees

Publications¹

Peer-reviewed Articles

- [C.7] Eunkyung Jo, Myeonghan Ryu, Georgia Kenderova*, Samuel So*, Bryan Shapiro, **Alexandra Papoutsaki**, Daniel A. Epstein. (2022). Designing Flexible Longitudinal Regimens: Supporting Clinician Planning for Discontinuation of Psychiatric Drugs. *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI)*.
- [C.6] Grete Helena Kütt, Kevin Lee*, Ethan Hardacre*, **Alexandra Papoutsaki**. (2019). Eye-Write: Gaze Sharing for Collaborative Writing. *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI)*.
- [C.5] **Alexandra Papoutsaki**, Aaron Gokaslan*, James Tompkin, Yuze He, Jeff 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)*.
- [C.4] **Alexandra Papoutsaki**, James Laskey*, Jeff 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)*.
Best Paper Award Runner Up
- [C.3] **Alexandra Papoutsaki**, Patsorn Sangkloy, James Laskey*, Nediya Daskalova, Jeff Huang, James Hays. (2016). WebGazer: Scalable Eye Tracking Using User Interactions. *Proceedings of the 25th International Joint Conference in Artificial Intelligence (IJCAI)*.
- [C.2] **Alexandra Papoutsaki**, Hua Guo, Danae Metaxa-Kakavouli*, Connor Gramazio, Jeff Rasley, Wenting Xie*, Guan Wang, Jeff 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)*.
Best Paper Award Runner Up

- [C.1] Fabio Vandin, **Alexandra Papoutsaki**, Benjamin J. Raphael, Eli 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)*.

Best Paper Award

Journal Articles

- [J.11] Eunkyung Jo, Rachael Zehrung, Katherine E. Genuario, **Alexandra Papoutsaki**, Daniel A. Epstein. (2024) Exploring Patient-Generated Annotations to Digital Clinical Symptom Measures to Promote Patient-Centered Communication. *Proceedings of the ACM on Human-Computer Interaction 8, CSCW2*, Article 359
- [J.10] Stephen Hutt, Aaron Wong, **Alexandra Papoutsaki**, Ryan S. Baker, Joshua I. Gold, Caitlin Mills. (2023) Webcam-based eye tracking to detect mind wandering and comprehension errors. *Behavior Research Methods*, <https://doi.org/10.3758/s13428-022-02040-x>
- [J.9] Sofie Beier, Sam Berlow, Esat Boucaud, Zoya Bylinskii, Tianyuan Cai, Jenae Cohn, Kathy Crowley, Stephanie L Day, Tilman Dingler, Jonathan Dobres, Jennifer Healey, Rajiv Jain, Marjorie Jordan, Bernard Kerr, Qisheng Li, Dave B Miller, Susanne Nobles, **Alexandra Papoutsaki**, Jing Qian, Tina Rezvanian, Shelley Rodrigo, Ben D Sawyer, Shannon M Sheppard, Bram Stein, Rick Treitman, Jen Vanek, Shaun Wallace, Benjamin Wolfe (2022) Readability Research: An Interdisciplinary Approach. *Foundations and Trends in Human-Computer Interaction*, <https://www.nowpublishers.com/article/Details/HCI-089>
- [J.8] Ori Amir, Konrad J. Utterback*, Justin Lee*, Kevin S. Lee*, Suehyun Kwon*, Dave M. Carroll*, **Alexandra Papoutsaki**. (2022) The elephant in the room: attention to salient scene features increases with comedic expertise. *Cognitive Processing*, <https://doi.org/10.1007/s10339-022-01079-0>
- [J.7] **Alexandra Papoutsaki**, Samuel So*, Georgia Kenderova*, Bryan Shapiro, Daniel A. Epstein. (2021) Understanding Delivery of Collectively Built Protocols in an Online Health Community for Discontinuation of Psychiatric Drugs. *Proceedings of the ACM on Human-Computer Interaction 5, CSCW2*, Article 420
- [J.6] Shaun Wallace, **Alexandra Papoutsaki**, Neilly H. Tan*, Hua Guo, Jeff Huang. (2021) Case Studies on the Motivation and Performance of Contributors Who Verify and Maintain In-Flux Tabular Datasets. *Proceedings of the ACM on Human-Computer Interaction 5, CSCW2*, Article 448
- [J.5] Grete Helena Kütt*, Teerapaun Tanprasert*, Jay Rodolitz*, Bernardo Moyza*, Samuel So*, Georgia Kenderova*, **Alexandra Papoutsaki**. (2020) Effects of Shared Gaze on Audio- Versus Text-Based Remote Collaborations. *Proceedings of the ACM on Human-Computer Interaction 4, CSCW2*, Article 136

¹Premiere human-computer interaction conferences (e.g., CHI) are heavily refereed and highly selective venues for top archival research. For more information, please read <https://doi.org/10.1145/1743546.1743569>. Since 2016, however, many of these conferences (e.g., Ubicomp and CSCW) have begun publishing as journals.

- [J.4] Jing Qian, Arielle Chapin*, **Alexandra Papoutsaki**, Fumeng Yang, Klaas Nelisson, Jeff Huang. (2018) Remotion: A Motion-Based Capture and Replay Platform of Mobile Device Interaction for Remote Usability Testing. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 2(2), 77
- [J.3] Nediya Daskalova, Karthik Desingh, **Alexandra Papoutsaki**, Diane Schulze*, Han Sha, Jeff Huang. (2017) Lessons Learned from Two Cohorts of Personal Informatics Self-Experiments. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 1(3), 46
- [J.2] Fabio Vandin, **Alexandra Papoutsaki**, Benjamin J. Raphael, Eli Upfal. (2015). Accurate Computation of Survival Statistics in Genome-Wide Studies. *Plos Computational Biology*, 11(5) e1004071
- [J.1] Mark D.M. Leiserson, Fabio Vandin, Hsin-Ta Wu, Jason R. Dobson, Jonathan V. Eldridge*, Jacob L. Thomas*, **Alexandra Papoutsaki**, Younhun Kim, Beifang Niu, Michael McLellan, Michael S. Lawrence, Abel Gonzalez-Perez, David Tamborero, Yuwei Cheng, Gregory A. Ryslik, Nuria Lopez-Bigas, Gad Getz, Li Ding, Benjamin J. Raphael. Pan-cancer network analysis identifies combinations of rare somatic mutations across pathways and protein complexes. (2015). *Nature Genetics*. 47(2): 106-114

Peer-reviewed Workshop Articles

- [W.1] Stefanos Stoikos*, David Kauchak, Douglas Turnbull, **Alexandra Papoutsaki**. (2023). Cross-Language Music Recommendation Exploration. *The 2023 ACM International Conference on Multimedia Retrieval (ICMR)*

Workshops Organized

- [WO.1] **Alexandra Papoutsaki**, Jina Huh-Yoo, Haley MacLeod, Lena Mamykina, Andrew D. Miller, Svetlana Yarosh, Daniel A. Epstein. (2021). The Future of Research on Online Health Communities: Discussing Membership, Structure, and Support. *The 24th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*

Doctoral Consortiums

- [D.1] **Alexandra 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)*

* Undergraduate student co-author

Leadership

Organizing Committees

MobileHCI ACM Conference on Mobile Human-Computer Interaction, 2023

Program Committees

CHI ACM CHI Conference on Human Factors in Computing Systems, 2021, 2025

CHIIR ACM SIGIR Conference on Human Information Interaction and Retrieval, 2018–2021

CSCW ACM Conference on Computer-Supported Cooperative Work and Social Computing, 2021

CWIC-SoCal SoCal Celebration of Women in Computing, 2018, 2020

ETRA ACM Symposium on Eye Tracking Research and Applications, 2019–2021, 2024

HCOMP AAAI Conference on Human Computation and Crowdsourcing, 2016

SIGIR ACM SIGIR Conference on Research and Development in Information Retrieval, 2018–2019

WWW ACM International World Wide Web Conference, 2020

[External Reviewing](#)

BRM Behavior Research Methods, 2023

CHI ACM CHI Conference on Human Factors in Computing Systems, 2015–2017, 2020, 2022

CHIIR ACM SIGIR Conference on Human Information Interaction and Retrieval, 2017, 2022

CSCW ACM Conference on Computer-Supported Cooperative Work and Social Computing, 2020

ETRA ACM Symposium on Eye Tracking Research and Applications, 2022

HCOMP AAAI Conference on Human Computation and Crowdsourcing, 2014

IJHCI International Journal of Human-Computer Interaction, 2014, 2021

IPM Information Processing and Management, 2024

JMUI Journal of Multimodal User Interfaces, 2023

IMWUT Interactive, Mobile, Wearable and Ubiquitous Technologies, 2021

NSF Anonymized panel, 2020

TAPIA Richard Tapia Celebration of Diversity in Computing, 2019–2021

TOCHI ACM Transactions on Computer-Human Interaction, 2021

UIST ACM Symposium on User Interface Software and Technology, 2019

WWW ACM International World Wide Web Conference, 2015

[Service](#)

Fall 2024 Institutional Review Board (IRB) - Chair, Pomona College

2023–2024 Faculty Position Advisory Committee (FPAC), Pomona College

2023–2024 Co-leader, Pomona Scholars in Math, Pomona College

2021, 2023–2024 Pomona College Academy for Youth Success (PAYS), Pomona College

Spring 2023 Education/Public School Teaching Committee, Pomona College

Spring 2022 Search committee for VP, Chief Operating Officer, and Treasurer, Pomona College

2021–2022 International and Domestic Programs Committee, Pomona College

2018–2020 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

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>

Press and Media Coverage

Eye-Write [C.6]

- May 2019 **FastCompany** -The mouse of the future? Your eyeballs. <http://bit.ly/36M5Yhi>
- January 2021 **Readability Matters** -An Interview with Dr. Alexandra Papoutsaki, Pomona College. <https://bit.ly/3pxC9KX>
- March 2018 **Fortune** -This Scientist Wants to Democratize Eye Tracking. <https://bit.ly/2Hx8BWW>
- 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

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>