# Peter Yiğitcan Washington
peterwashington.net
peter.washington@ucsf.edu

## Full-Time Employment

**University of California, San Francisco (UCSF)**
Assistant Professor
Division of Clinical Informatics and Digital Transformation
Department of Medicine

Secondary Appointment, Division of Bioinformatics, Department of Epidemiology and Biostatistics
Member, UCSF Bakar Computational Health Sciences Institute
Core Faculty, UCSF PhD Program in Biological and Medical Informatics (BMI)
Faculty Affiliate, UC Berkeley – UCSF PhD Program in Computational Precision Health

January 2025 - Present

**University of Hawaiʻi at Mānoa**
Assistant Professor
Department of Information and Computer Sciences

Faculty Affiliate, PhD Program in Communication and Information Sciences
Faculty Affiliate, University of Hawaiʻi Cancer Center

August 2022 – December 2024

## Education

Ph.D.   **Stanford University.** Bioengineering.
September 2017 – June 2022.

M.S.   **Stanford University.** Computer Science.
September 2015  - June 2018.

B.A.   **Rice University.** Computer Science.
August 2011 – May 2015.

## Funding

External Awards (Role: PI)

- NIH New Innovator Award (DP2): 2023-2028
  - $1,500,000 direct costs
  - $2,182,500 total

- NSF Smart and Connected Health (SCH): 2024-2028
  - $946,124 direct costs

- $1,183,690 total

- AIM-Ahead Pilot Projects Program: 2023-2024
  - $68,728 direct costs
  - $100,000 total

- Hawaii Community Foundation Medical Research Award: 2023-2024
  - $54,500 direct costs
  - $59,946 total

- Amazon Web Services Cloud Credit for Research: 2023-2024
  - $83,000 total (no indirect costs)

- Google Cloud Research Credits: 2023
  - $5,000 total (no indirect costs)

Internal Awards (Role: PI) – no indirect costs

- Center for Pacific Innovations, Knowledge, and Opportunities (PIKO) Pilot Project Grant: $50,000
  - 2023-2024

- Ola HAWAII Pilot Project Grant: $50,000
  - 2023-2024

- University of Hawaii 2023 Faculty Mentoring Grant for Summer Undergraduate Research and Creative Work: $9,930
  - 2023

- Manoa Faculty Research Travel Award 2022: $2,000

External Awards (Role: Co-Investigator)

- NIH R01 subaward, PI: Jennette Moreno - 9/2023-8/2024

- AIM-Ahead Data and Infrastructure Capacity Building, PI: Alex Stokes

# Part-Time and Short-Term Industry Experience

- **Curve Biosciences.** Scientific Advisory Board and Informatics Consultant. — January 2023 – Present
- **Cognoa.** Machine Learning Consultant. — March 2022 – June 2022
- **MLPro**. Co-Founder and Lead Machine Learning Content Creator — February 2021 – March 2022
- **AI Instructor**. Inspirit AI — June 2019 – Present
- **Google**. Software Engineering Internship — June 2016 – September 2016
- **Delphix**. Software Engineering Internship — May 2015 – August 2015

- **Amazon**. Software Engineering Internship                                   May 2014 – August 2014
- **Spiceworks**. Software Engineering Internship                               May 2013 – August 2013
- **Microsoft Research**. Visiting Student with Sharad Agarwal and Lin          May 2012 – August 2012
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## Publications

Full list of papers is available [here](#).

### Papers

- Jaiswal, Aditi, Dennis P. Wall, and **Peter Washington**. "Challenges in the Differential Classification of Individual Diagnoses from Co-Occurring Autism and ADHD Using Survey Data." *IEEE EMBS International Conference on Biomedical and Health Informatics* (2024).
- Li, Joe, and **Peter Washington**. "A comparison of personalized and generalized approaches to emotion recognition using consumer wearable devices: machine learning study." *JMIR AI* 3, no. 1 (2024): e52171.
- Slade, Christopher, Roberto M. Benzo, and **Peter Washington**. "Design Guidelines for Improving Mobile Sensing Data Collection: Prospective Mixed Methods Study." *Journal of Medical Internet Research* 26 (2024): e55694.
- Li, Shizhe, Chunzhi Fan, Ali Kargarandehkordi, Yinan Sun, Christopher Slade, Aditi Jaiswal, Roberto M. Benzo, Kristina T. Phillips, and **Peter Washington**. "Monitoring Substance Use with Fitbit Biosignals: A Case Study on Training Deep Learning Models Using Ecological Momentary Assessments and Passive Sensing." *AI* 5, no. 4 (2024): 2725-2738.
- Singh, Rujul, Macy K. Tetrick, James L. Fisher, **Peter Washington**, Jane Yu, Electra D. Paskett, Frank J. Penedo, Steven K. Clinton, and Roberto M. Benzo. "Analysis of Physical Activity Using Wearable Health Technology in US Adults Enrolled in the All of Us Research Program: Multiyear Observational Study." *Journal of medical Internet research* 26 (2024): e65095.
- Lin, Kaiying, and **Peter Washington**. "Multimodal deep learning for dementia classification using text and audio." *Scientific Reports* 14, no. 1 (2024): 13887.
- Kargarandehkordi, Ali, Christopher Slade, and **Peter Washingto**n. "Personalized AI-Driven Real-Time Models to Predict Stress-Induced Blood Pressure Spikes Using Wearable Devices: Proposal for a Prospective Cohort Study." *JMIR Research Protocols* 13, no. 1 (2024): e55615.
- Sun, Yinan, Ali Kargarandehkordi, Christopher Slade, Aditi Jaiswal, Gerald Busch, Anthony Guerrero, Kristina T. Phillips, and **Peter Washington**. "Personalized Deep Learning for Substance Use in Hawaii: Protocol for a Passive Sensing and Ecological Momentary Assessment Study." *JMIR Research Protocols* 13, no. 1 (2024): e46493.
- Jaiswal, Aditi, Ruben Kruiper, Abdur Rasool, Aayush Nandkeolyar, Dennis P. Wall, and **Peter Washington**. "Digitally Diagnosing Multiple Developmental Delays Using Crowdsourcing Fused With Machine Learning: Protocol for a Human-in-the-Loop Machine Learning Study." *JMIR Research Protocols* 13, no. 1 (2024): e52205.

- **Washington, Peter**. "A Perspective on Crowdsourcing and Human-in-the-Loop Workflows in Precision Health." *Journal of Medical Internet Research* 26 (2024): e51138.
- Gardasevic, Stanislava, Aditi Jaiswal, Manika Lamba, Jena Funakoshi, Kar-Hai Chu, Aekta Shah, Yinan Sun, Pallav Pokhrel, and **Peter Washington**. "Public Health Using Social Network Analysis During the COVID-19 Era: A Systematic Review." *Information* 15, no. 11 (2024): 690.
- Islam, Tanvir, and **Peter Washington**. "Non-Invasive Biosensing for Healthcare Using Artificial Intelligence: A Semi-Systematic Review." *Biosensors* 14, no. 4 (2024): 183.
- Soltan, Armin, and **Peter Washington**. "Challenges in Reducing Bias Using Post-Processing Fairness for Breast Cancer Stage Classification with Deep Learning." *Algorithms* 17, no. 4 (2024): 141.
- Jaiswal, Aditi, Aekta Shah, Christopher Harjadi, Erik Windgassen, and **Peter Washington**. "Ethics of the use of social media as training data for AI models used for digital phenotyping." *JMIR Formative Research* 8, no. 1 (2024): e59794.
- Jaiswal, Aditi, and **Peter Washington**. "Using# ActuallyAutistic on Twitter for Precision Diagnosis of Autism Spectrum Disorder: Machine Learning Study." *JMIR Formative Research* 8 (2024): e52660.
- Jabbar, Zain, and **Peter Washington**. "The Effect of Data Missingness on Machine Learning Predictions of Uncontrolled Diabetes Using All of Us Data." *BioMedInformatics* 4, no. 1 (2024): 780-795.
- Amin, Samia, Si woo Chae, **Peter Washington**, Scott K. Okamoto, Tsering Youkey, and Pallav Pokhrel. "A mixed-method exploration of# vapingcessation videos on TikTok." *Journal of Addictive Diseases* (2024): 1-9.
- Nimitsurachat, Peranut, and **Peter Washington**. "Audio-Based Emotion Recognition Using Self-Supervised Learning on an Engineered Feature Space." *AI* 5, no. 1 (2024): 195-207.
- Islam, Tanvir, and **Peter Washington**. "Individualized stress mobile sensing using self-supervised pre-training." *Applied Sciences* 13, no. 21 (2023): 12035.
- Parab, Shubham, Jerry Boster, and **Peter Washington**. "Parkinson Disease Recognition Using a Gamified Website: Machine Learning Development and Usability Study." *JMIR Formative Research* 7, no. 1 (2023): e49898.
- Eom, Sunwoo, Sunmin Eom, and **Peter Washington**. "SIM-CNN: Self-Supervised Individualized Multimodal Learning for Stress Prediction on Nurses Using Biosignals." *ICML Workshop on Multimodal Healthcare* (2023).
- Islam, Tanvir and **Peter Washington**. "Personalized Prediction of Recurrent Stress Events Using Self-Supervised Learning on Multimodal Time-Series Data." *ICML Workshop on HCI and AI* (2023).
- **Washington, Peter,** and Dennis P. Wall. "A Review of and Roadmap for Data Science and Machine Learning for the Neuropsychiatric Phenotype of Autism." *Annual Review of Biomedical Data Science* 6 (2023).
- Lin, Kaiying, and **Peter Washington**. "The categorization of intransitive verbs in Mandarin: Evidence from word2vec modeling and behavioral experiment." *Proceedings of the Annual Meeting of the Cognitive Science Society*. 45 (2023).
- Amin, Samia, Aditi Jaiswal**, Peter Washington**, Pallav Pokhrel. "Investigating# vapingcessation in Twitter." *Research Square* (2023): rs-3.

- Indika, Amila, **Peter Washington**, and Anthony Peruma. "Performance Comparison of Binary Machine Learning Classifiers in Identifying Code Comment Types: An Exploratory Study." *2023 IEEE ACM 2nd International Workshop on Natural Language Based Software Engineering (NLBSE)* (2023).

- Banerjee, Agnik, Onur Cezmi Mutlu, Aaron Kline, Saimourya Surabhi, **Peter Washington**, and Dennis Paul Wall. "Training and profiling a pediatric facial expression classifier for children on mobile devices: machine learning study." *JMIR formative research* 7 (2023): e39917.

- **Washington, Peter**, et al. "Towards Ethical Biomedical Informatics: Learning from Olelo Noeau, Hawaiian Proverbs." *Pacific Symposium on Biocomputing* (2022).

- Lakkapragada, Anish, Aaron Kline, Onur Cezmi Mutlu, Kelley Paskov, Brianna Chrisman, Nathaniel Stockham, **Peter Washington**, and Dennis Paul Wall. "The Classification of Abnormal Hand Movement to Aid in Autism Detection: Machine Learning Study." *JMIR Biomedical Engineering* 7, no. 1 (2022): e33771.

- **Washington, Peter**, Haik Kalantarian, John Kent, Arman Husic, Aaron Kline, Emilie Leblanc, Cathy Hou et al. "Improved Digital Therapy for Developmental Pediatrics Using Domain-Specific Artificial Intelligence: Machine Learning Study." *JMIR Pediatrics and Parenting* 5, no. 2 (2022): e26760.

- **Washington, Peter,** Brianna Chrisman, Emilie Leblanc, Kaitlyn Dunlap, Aaron Kline, Cezmi Mutlu, Nate Stockham, Kelley Paskov, and Dennis Paul Wall. "Crowd annotations can approximate clinical autism impressions from short home videos with privacy protections." *Intelligence-based medicine* 6 (2022): 100056.

- Stockham, Nathaniel, **Peter Washington**, Brianna Chrisman, Kelley Paskov, Jae-Yoon Jung, and Dennis Paul Wall. "Causal Modeling to Mitigate Selection Bias and Unmeasured Confounding in Internet-Based Epidemiology of COVID-19: Model Development and Validation." *JMIR public health and surveillance* 8, no. 7 (2022): e31306.

- Surabhi, Saimourya, Bhavik Shah, **Peter Washington**, Onur Cezmi Mutlu, Emilie Leblanc, Prathamesh Mohite, Arman Husic et al. "TikTok for Good: Creating a Diverse Emotion Expression Database." In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, pp. 2496-2506. 2022.

- Chi, Nathan A., **Peter Washington**, Aaron Kline, Arman Husic, Cathy Hou, Chloe He, Kaitlyn Dunlap, and Dennis P. Wall. "Classifying Autism From Crowdsourced Semistructured Speech Recordings: Machine Learning Model Comparison Study." *JMIR Pediatrics and Parenting* 5, no. 2 (2022): e35406.

- Chrisman, Brianna S., Kelley M. Paskov, Nate Stockham, Jae-Yoon Jung, Maya Varma, **Peter Y. Washington**, Christine Tataru et al. "Improved detection of disease-associated gut microbes using 16S sequence-based biomarkers." *BMC bioinformatics* 22, no. 1 (2021): 1-16.

- Varma, Maya, Kelley M. Paskov, Brianna S. Chrisman, Min Woo Sun, Jae-Yoon Jung, Nate T. Stockham, **Peter Y. Washington**, and Dennis P. Wall. "A maximum flow-based network approach for identification of stable noncoding biomarkers associated with the multigenic neurological condition, autism." *BioData Mining* 14, no. 1 (2021): 1-15.

- Paskov, Kelley, Jae-Yoon Jung, Brianna Chrisman, Nate T. Stockham, **Peter Washington**, Maya Varma, Min Woo Sun, and Dennis P. Wall. "Estimating sequencing error rates using families." *BioData Mining* 14, no. 1 (2021): 1-19.

- Chrisman, Brianna Sierra, Kelley Paskov, Nate Stockham, Kevin Tabatabaei, Jae-Yoon Jung, **Peter Washington**, Maya Varma, Min Woo Sun, Sepideh Maleki, and Dennis P. Wall. "Indels in SARS-CoV-2 occur at template-switching hotspots." *BioData mining* 14, no. 1 (2021): 1-16.

- **Washington, Peter**, Qandeel Tariq, Emilie Leblanc, Brianna Chrisman, Kaitlyn Dunlap, Aaron Kline, Haik Kalantarian et al. "Crowdsourced privacy-preserved feature tagging of short home videos for machine learning ASD detection." *Scientific reports* 11, no. 1 (2021): 1-11.

- **Washington, Peter**, Haik Kalantarian, Jack Kent, Arman Husic, Aaron Kline, Emilie Leblanc, Cathy Hou et al. "Training Affective Computer Vision Models by Crowdsourcing Soft-Target Labels." *Cognitive Computation* 13, no. 5 (2021): 1363-1373.

- **Washington, Peter**, Aaron Kline, Onur Cezmi Mutlu, Emilie Leblanc, Cathy Hou, Nate Stockham, Kelley Paskov, Brianna Chrisman, and Dennis Wall. "Activity Recognition with Moving Cameras and Few Training Examples: Applications for Detection of Autism-Related Headbanging." In *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems*, pp. 1-7. 2021.

- Shih, Cynthia, Ruhi Pudipeddi, Arany Uthayakumar, and **Peter Washington**. "A local community-based social network for mental health and well-being (Quokka): exploratory feasibility study." *JMIRx Med* 2, no. 4 (2021): e24972.

- Penev, Yordan, Kaitlyn Dunlap, Arman Husic, Cathy Hou, **Peter Washington**, Emilie Leblanc, Aaron Kline et al. "A Mobile Game Platform for Improving Social Communication in Children with Autism: A Feasibility Study." *Applied clinical informatics* 12, no. 05 (2021): 1030-1040.

- **Washington, Peter**, Emilie Leblanc, Kaitlyn Dunlap, Yordan Penev, Aaron Kline, Kelley Paskov, Min Woo Sun et al. "Precision telemedicine through crowdsourced machine learning: testing variability of crowd workers for video-based autism feature recognition." *Journal of personalized medicine* 10, no. 3 (2020): 86.

- **Washington, Peter**, Serena Yeung, Bethany Percha, Nicholas Tatonetti, Jan Liphardt, and Dennis P. Wall. "Achieving trustworthy biomedical data solutions." In *BIOCOMPUTING 2021: Proceedings of the Pacific Symposium*, pp. 1-13. 2020.

- **Washington, Peter**, Emilie Leblanc, Kaitlyn Dunlap, Yordan Penev, Maya Varma, Jae-Yoon Jung, Brianna Chrisman et al. "Selection of trustworthy crowd workers for telemedical diagnosis of pediatric autism spectrum disorder." In *BIOCOMPUTING 2021: Proceedings of the Pacific Symposium*, pp. 14-25. 2020.

- **Washington, Peter**, Kelley Paskov, Haik Kalantarian, Nathaniel Stockham, Catalin Voss, Aaron Kline, Ritik Patnaik, Brianna Chrisman, Maya Varma, Qandeel Tariq, Kaitlyn Dunlap, Jessey Schwartz, Nick Haber, Dennis P. Wall. "Feature Selection and Dimension Reduction of Social Autism Data." *Pacific Symposium on Biocompuuting* (2020).

- **Washington, Peter**, Natalie Park, Parishkrita Srivastava, Catalin Voss, Aaron Kline, Maya Varma, Qandeel Tariq, Haik Kalantarian, Jessey Schwartz, Ritik Patnaik, Nick Haber, Dennis P. Wall. "Data-Driven Diagnostics and the Potential of Mobile Artificial Intelligence for Digital Therapeutic Phenotyping in Computational Psychiatry." *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging* (2020).

- Leblanc, Emilie, **Peter Washington**, Maya Varma, Kaitlyn Dunlap, Yordan Penev, Aaron Kline, and Dennis P. Wall. "Feature replacement methods enable reliable home video analysis for machine learning detection of autism." *Scientific reports* 10, no. 1 (2020): 1-11.

- Kalantarian, Haik, Khaled Jedoui, Kaitlyn Dunlap, Jessey Schwartz, **Peter Washington**, Arman Husic, Qandeel Tariq, Michael Ning, Aaron Kline, and Dennis Paul Wall. "The performance of emotion classifiers for children with parent-reported autism: quantitative feasibility study." *JMIR mental health* 7, no. 4 (2020): e13174.

- Chrisman, Brianna Sierra, Kelley Paskov, Nate Stockham, Jae-Yoon Jung, Maya Varma, **Peter Washington**, and Dennis P. Wall. "Common Microdeletions in SARS-CoV-2 Sequences." *Virological. org* (2020).

- Chrisman, Brianna, Kelley Paskov, Nate Stockham, Kevin Tabatabaei, Jae-Yoon Jung, **Peter Washington**, Maya Varma, Min Woo Sun, Sepideh Maleki, and Dennis Paul Wall. "Structural Variants in SARS-CoV-2 Occur at Template-Switching Hotspots." *bioRxiv* (2020).

- Sun, Min Woo, Stefano Moretti, Kelley M. Paskov, Nate T. Stockham, Maya Varma, Brianna S. Chrisman, **Peter Y. Washington**, Jae-Yoon Jung, and Dennis P. Wall. "Game theoretic centrality: a novel approach to prioritize disease candidate genes by combining biological networks with the Shapley value." *BMC bioinformatics* 21, no. 1 (2020): 1-10.

- **Washington, Peter**, Haik Kalantarian, Qandeel Tariq, Jessey Schwartz, Kaitlyn Dunlap, Brianna Chrisman, Maya Varma, Michael Ning, Aaron Kline, Nathaniel Stockham, Kelley Paskov, Catalin Voss, Nick Haber, Dennis P. Wall. "Validity of Online Screening for Autism: Crowdsourcing Study Comparing Paid and Unpaid Diagnostic Tasks." *Journal of Medical Internet Research (JMIR)* 21, no. 5 (2019): e13668.

- **Washington, Peter**, Karina G. Samuel-Gama, Shirish Goyal, Ashwin Ramaswami, and Ingmar H. Riedel-Kruse. "Interactive programming paradigm for real-time experimentation with remote living matter." *Proceedings of the National Academy of Sciences (PNAS)* 116, no. 12 (2019): 5411-5419.

- Das, Rhiju, Benjamin Keep, **Peter Washington**, and Ingmar H. Riedel-Kruse. "Scientific Discovery Games for Biomedical Research." *Annual Review of Biomedical Data Science* 2 (2019): 253-279.

- Kalantarian, Haik, Khaled Jedoui, **Peter Washington**, Qandeel Tariq, Kaiti Dunlap, Jessey Schwartz, and Dennis P. Wall. "Labeling images with facial emotion and the potential for pediatric healthcare." *Artificial Intelligence in Medicine* 98 (2019): 77-86.

- Voss, Catalin, Jessey Schwartz, Jena Daniels, Aaron Kline, Nick Haber, **Peter Washington**, Qandeel Tariq, Thomas Robinson, Manisha Desai, Jennifer Phillips, Carl Feinstein, Terry Winograd, Dennis P. Wall. "Effect of Wearable Digital Intervention for Improving Socialization in Children With Autism Spectrum Disorder: A Randomized Clinical Trial." *JAMA pediatrics* 173, no. 5 (2019): 446-454.

- Kalantarian, Haik, **Peter Washington**, Jessey Schwartz, Jena Daniels, Nick Haber, and Dennis P. Wall. "Guess What?." *Journal of Healthcare Informatics Research* 3, no. 1 (2019): 43-66.

- Ning, Michael, Jena Daniels, Jessey Schwartz, Kaitlyn Dunlap, **Peter Washington**, Haik Kalantarian, Michael Du, and Dennis P. Wall. "Identification and Quantification of Gaps in Access to Autism Resources in the United States: An Infodemiological Study." *Journal of medical Internet research* 21, no. 7 (2019): e13094.

- Tariq, Qandeel, Scott Lanyon Fleming, Jessey Nicole Schwartz, Kaitlyn Dunlap, Conor Corbin, **Peter Washington**, Haik Kalantarian, Naila Z. Khan, Gary L. Darmstadt, and Dennis Paul Wall. "Detecting Developmental Delay and Autism Through Machine Learning Models Using Home Videos of Bangladeshi Children: Development and Validation Study." *Journal of medical Internet research* 21, no. 4 (2019): e13822.

- Varma, Maya, Kelley Marie Paskov, Jae-Yoon Jung, Brianna Sierra Chrisman, Nate Tyler Stockham, **Peter Washington**, and Dennis Paul Wall. "Outgroup Machine Learning Approach Identifies Single Nucleotide Variants in Noncoding DNA Associated with Autism Spectrum Disorder." In *Pacific Symposium on Biocomputing*, pp. 260-271. 2019.

- **Washington, Peter**, Karina G. Samuel-Gama, Shirish Goyal, Ashwin Ramaswami, and Ingmar H. Riedel-Kruse. "Prototyping Biotic Games and Interactive Experiments with JavaScript." In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems*, p. D415. ACM, 2018. (Acceptance rate 31%)

- Chrisman, Brianna, Maya Varma, **Peter Washington**, Kelley Paskov, Nate Stockham, Jae-Yoon Jung, and Dennis P. Wall. "Analysis of Sex and Recurrence Ratios in Simplex and Multiplex Autism Spectrum Disorder Implicates Sex-Specific Alleles as Inheritance Mechanism." In *2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pp. 1470-1477. IEEE, 2018.

- Tariq, Qandeel, Jena Daniels, Jessey Nicole Schwartz, **Peter Washington**, Haik Kalantarian, and Dennis Paul Wall. "Mobile detection of autism through machine learning on home video: A development and prospective validation study." *PLoS medicine* 15, no. 11 (2018): e1002705.

- Kalantarian, Haik, Khaled Jedoui, **Peter Washington**, and Dennis P. Wall. "A Mobile Game for Automatic Emotion-Labeling of Images." *IEEE Transactions on Games* (2018).

- Kalantarian, Haik, **Peter Washington**, Jessey Schwartz, Jena Daniels, Nick Haber, and Dennis Wall. "A Gamified Mobile System for Crowdsourcing Video for Autism Research." In *2018 IEEE International Conference on Healthcare Informatics (ICHI)*, pp. 350-352. IEEE, 2018.

- Daniels, Jena, Jessey N. Schwartz, Catalin Voss, Nick Haber, Azar Fazel, Aaron Kline, **Peter Washington**, Carl Feinstein, Terry Winograd, and Dennis P. Wall. "Exploratory study examining the at-home feasibility of a wearable tool for social-affective learning in children with autism." *npj Digital Medicine* 1, no. 1 (2018): 32.

- Daniels, Jena, Nick Haber, Catalin Voss, Jessey Schwartz, Serena Tamura, Azar Fazel, Aaron Kline, **Peter Washington**, Jennifer Phillips, Terry Winograd, Carl Feinstein, Dennis P. Wall. "Feasibility testing of a wearable behavioral aid for social learning in children with autism." *Applied clinical informatics* 9, no. 01 (2018): 129-140.

- **Washington, Peter**, Catalin Voss, Aaron Kline, Nick Haber, Jena Daniels, Azar Fazel, Titas De, Carl Feinstein, Terry Winograd, and Dennis P. Wall. "Superpowerglass: A wearable aid for the at-home therapy of children with autism." *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies* 1, no. 3 (2017): 112. Presented at UbiComp 2017.

- Dietz, Griffin, Jane E, **Peter Washington**, Lawrence H. Kim, and Sean Follmer. "Human perception of swarm robot motion." In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems*, pp. 2520-2527. ACM, 2017. (Acceptance rate 20%)

- **Washington, Peter**, Catalin Voss, Nick Haber, Serena Tanaka, Jena Daniels, Carl Feinstein, Terry Winograd, and Dennis Wall. "A wearable social interaction aid for children with autism."

In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*, pp. 2348-2354. ACM, 2016. (Acceptance rate 20%)

- **Washington, Peter**, Mayank Kumar, Anant Tibrewal, and Ashutosh Sabharwal. "ScaleMed: A methodology for iterative mHealth clinical trials." In *2015 17th International Conference on E-health Networking, Application & Services (HealthCom)*, pp. 139-143. IEEE, 2015.

- LiKamWa, Robert, Yunhui Hou, **Peter Washington**, and Lin Zhong. "Invited Paper: Rethinking the Imaging Pipeline for Energy-Efficient Privacy-Preserving Continuous Mobile Vision." In *SID Symposium Digest of Technical Papers*, vol. 46, no. 1, pp. 187-188. 2015.

- Sani, Ardalan Amiri, Zhiyong Tan, **Peter Washington**, Mira Chen, Sharad Agarwal, Lin Zhong, and Ming Zhang. "The wireless data drain of users, apps, & platforms." *ACM SIGMOBILE Mobile Computing and Communications Review* 17, no. 4 (2013): 15-28.

## Teaching

### University of California, San Francisco

- Artificial Intelligence in Clinical Informatics (EPI 233) – Spring 2025

### University of Hawai'i at Mānoa

- Human-Centered Data Science (ICS 491) – Fall 2023
- Fundamentals of Machine Learning (ICS 435) and Machine Learning (ICS 635) – Spring 2023
- Human-Centered Artificial Intelligence (ICS 691D) – Fall 2022, Fall 2024

## Invited Talks and Panels

- <u>Stanford University</u> Center for Artificial Intelligence in Medicine and Imaging (AIMI) Pediatric Symposium. June 2025. Panel.
- <u>Ohio State University</u> Department of Biomedical Informatics. March 2025. Talk.
- <u>University of California, Berkeley</u> and <u>University of California, San Francisco</u> Computational Precision Health. March 2025. Talk.
- <u>Precision Medicine World Conference (PMWC)</u>. February 2025. Talk.
- <u>Internet2 Cloud Forum</u> hosted at Stanford University. May 2024. Talk and Panelist.
- <u>University of California, San Francisco</u> Division of Clinical Informatics and Digital Transformation. March 2024. Talk.
- <u>Hawaii International Conference on System Sciences (HICSS) 2024 Conference Workshop</u> Keynote Address. January 2024. Talk.
- <u>Stanford University</u> Guest Lecture for CME/MS&E 218: Applied Data Science. November 2023. Talk.
- <u>University of Arizona</u> Department of Biomedical Engineering. October 2022. Talk.
- <u>Google Research</u>. February 2022. Talk.
- <u>Amazon Research</u>. February 2022. Talk.

- <u>Apple Research</u>. February 2022. Talk.
- <u>Rice University</u> Department of Electrical Engineering. February 2022. Talk.
- <u>University of Hawaii at Manoa</u> Department of Information and Computer Sciences. February 2022. Talk.
- <u>Columbia University</u> Department of Biomedical Informatics. January 2022. Talk.
- <u>Boston Children's Hospital</u> Computational Health Informatics Program and <u>Harvard Medical School</u> Department of Pediatrics. January 2022. Talk.

## Mentorship and Advising

**University of California, San Francisco**
<u>Postdoc:</u> TBD
<u>Masters:</u> Shizhe Li
<u>Undergraduate:</u> Agnik Banerjee (University of Maryland), Dana Kim (UC Berkeley)

**University of Hawaiʻi at Mānoa**
<u>Postdoc:</u> Abdur Rasool (afterwards: postdoc at University of Hawaii)
<u>PhD:</u> Ali Kargarandehkordi, Christopher Slade, Yang Qian, Aditi Jaiswal, Zerin Tumpa, Yinan Sun (afterwards: postdoc at Ohio State), Kaiying Lin (afterwards: independent researcher at Academia Sinica in Taiwan)
<u>Masters:</u> Md Rahat Zawad (afterwards: PhD student at Rice), Tanvir Islam (afterwards: PhD student at Texas A&M), Armin Soltan (afterwards: AI Engineer at Pacific Disaster Center), Lydia Sollis (afterwards: PhD student at University of Hawaii)
<u>Undergraduate:</u> Jing Zheng (afterwards: MS student at UC Berkeley), Zian Zeng
<u>High school:</u> Sunny Eom (afterwards: undergrad at Harvard), Annie Eom (afterwards: undergrad at Yale), Joe Li (afterwards: undergrad at Stanford), Shubham Parab (afterwards: undergrad at NYU)

**Stanford University**
<u>Undergraduate:</u> Cathy Hou, Essam Sleiman, Karina Samuel-Gama
<u>High school:</u> Nathan Chi, Anish Lakkapragada, Agnik Banerjee, Ritik Patnaik

## Service

<u>Service at University of California, San Francisco (UCSF)</u>
- Member, Division of Clinical Informatics and Digital Transformation Faculty Search Committee, 2025
- Member, MS committees in Training in Clinical Research (TICR) program, Department of Epidemiology and Biostatistics, 2025 – present
  - MS committees: Yuntao Zao

<u>Service at University of Hawaiʻi at Mānoa</u>
- Lead Organizer, AI Precision Health Institute Seminar Series

- o   Member, Information & Computer Sciences (ICS) Graduate Committee
- o   Member, Communication & Information Science (CIS) PhD Program Graduate Faculty
- o   Member, Information & Computer Sciences (ICS) Faculty Hiring Committee, 2022-2023 and 2023-2024
- o   Member, Information Technology Services Cyberinfrastructure Faculty Advisory Committee
- o   Member, Communication & Information Science (CIS) PhD Program Data Science Area Exam Committee
- o   Master's committees (not my students): Arianna Bunnell
- o   PhD committees (not my students): Yoshiki Takagi, Kai-Ying Lin, Bernadette Tix, Hannah Bacol Busch

### External Leadership

- o   Local Arrangements Co-Chair, ACM CHI 2024
- o   Pacific Symposium on Biocomputing (PSB) 2023 lead conference session organizer for "Towards Ethical Biomedical Informatics"
- o   Pacific Symposium on Biocomputing (PSB) 2021 lead conference session organizer for "Achieving Trustworthy Biomedical Data"

### Service in Hawai'i

- o   Speaker, Waipahu Intermediate School Career Fair

Paper Reviewing:  JMIR Research Protocols (2025), IEEE Access (2025), BMC Medical Informatics and Decision Making (2024), Pacific Symposium of Biocomputing (2024), Discover Computing (2024), Scientific Reports (2024), MethodsX (2024), European Journal of Pediatrics (2024), Biomedical Signal Processing and Control (2024), Journal of Psychiatric Research (2024), ACM CHI Full Papers (2019, 2023), ICML 2023 Workshop on Machine Learning for Multimodal Healthcare Data (2023), International Journal of Human-Computer Interaction (2023), IMWUT (2022), IEEE Pervasive Computing (2022), Journal of Medical Internet Research (2018-2024), ACM CSCW Full Papers (2018), ACM UIST Full Papers (2018), ACM DIS  Full Papers (2018), ACM MobileHCI Posters (2018), ACM DIS Works in Progress (2018), ACM IDC Works in Progress (2018), ACM CHI Late-Breaking Work (2018), ACM TEI Late-Breaking Work (2018)

Grant Reviewing:

- •   American Heart Association (AHA) Letters of Intent for "Novel Artificial Intelligence Approaches to Advance Cardiovascular and Cerebrovascular/Brain Health" Program (3/25)
- •   NIH Interventions to Prevent and Treat Addictions Study Section (6/24)
- •   Center for Pacific Innovations, Knowledge, and Opportunities (PIKO) 2024 (pilot projects funded by NIH U54GM138062)
- •   RCMI-CC Clinical Research Pilot Projects Program 2023

Non-University Teaching:

- o Machine Learning Instructor for InspiritAI in New Delhi, India (summer 2019), Bangkok, Thailand (summer 2023), and online (2020 - 2023)
- o Instructor for Stanford Institutes of Medicine Summer Research Program (SIMR) Bioengineering Bootcamp (summer 2018)

Non-University Mentoring:

- o Mentor, NIH AIM-Ahead CLINAQ Program 2024-2025
- o Mentor, NIH AIM-Ahead Leadership Fellows Program 2023-2024
- o Mentor for Polygence (2022 – present)
- o Private middle and high school programming instructor (2019 – 2021)
- o Programming tutor for Cardinal Tutors (2018 - 2019)
- o Stanford Bioengineering REU summer mentor (2017 and 2018)

Conference Student Volunteering: CHI 2016, UbiComp 2017

## Awards and Honors

- NIH New Innovator's Award
- Stanford Interdisciplinary Graduate Fellowship (SIGF)
- Stanford Biomedical Informatics Retreat Best Poster, 3rd Place, 2019
- Best Class Project, Stanford CS247, Winter 2016 (1 of 1 awarded for team of 3; 85 students enrolled)
- Best Class Project, Stanford CS376, Fall 2016 (1 of 2 awarded for team of 3; 35 students enrolled)
- Distinction in Research and Creative Works, Rice University
- Cum Laude, Rice University
- Rice Engineering Alumni Outstanding Research Excellence Award, 2015 (1 of 2 awarded)
- Rice Engineering Alumni Computer Science Senior Merit Award, 2015 (1 of 1 awarded)
- Rice Engineering Alumni Computer Science Junior Merit Award, 2014 (1 of 1 awarded)
- Rice Undergraduate Research Symposium Top-Three Engineering Individual Projects, 2014 (1 of 3 awarded)
- Rice Undergraduate Scholars Program, 2013 – 2014