

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 Hawai‘i at Mānoa

Assistant Professor

Department of Information and Computer Sciences

Faculty Affiliate, PhD Program in Communication and Information Sciences

Faculty Affiliate, University of Hawai‘i 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 or MPI) – direct costs only (no indirect costs)

- Meredith Wilson Pilot Award: \$20,000 (2026) – University of California, San Francisco
- Weill Neurohub Next Great Ideas Award: \$250,000 (2025-2027) – University of California, San Francisco and University of California, Berkeley (MPI with Adrian Aguilera, funds split evenly between both institutions)
- Resource Allocation Program (RAP) for Early Career Investigators, Clinical & Translational Science Institute (CTSI): \$40,000 (2025-2026) – University of California, San Francisco
- Center for Pacific Innovations, Knowledge, and Opportunities (PIKO) Pilot Project Grant: \$50,000 (2023-2024) – University of Hawaii
- Ola HAWAII Pilot Project Grant: \$50,000 (2023-2024) – University of Hawaii
- University of Hawaii 2023 Faculty Mentoring Grant for Summer Undergraduate Research and Creative Work: \$9,930 (2023) – University of Hawaii
- Manoa Faculty Research Travel Award: \$2,000 (2022) – University of Hawaii

External Awards (Role: Co-Investigator)

- NIH R01 subaward, PI: Jennette Moreno - 9/2023-8/2028
- 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 Zhong May 2012 – August 2012

Teaching

University of California, San Francisco

- Artificial Intelligence in Clinical Informatics (EPI 233) – Spring 2025, Spring 2026

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

External Invited Speaking Engagements

- Stanford University HCI Seminar, Department of Computer Science. May 2026. Talk.
- American College of Clinical Pharmacology. April 2026. Webinar.
- University of Texas at Austin Health Outcomes Division, College of Pharmacy. February 2026. Talk.
- University of San Francisco Department of Psychology. February 2026. Talk.
- Conference on Health, Inference, and Learning (CHIL) hosted at University of California, Berkeley. June 2025. Panel moderator.
- Stanford University Center for Artificial Intelligence in Medicine and Imaging (AIMI) Pediatric Symposium. June 2025. Panelist.
- Ohio State University Department of Biomedical Informatics. March 2025. Talk.
- Precision Medicine World Conference (PMWC). February 2025. Talk.
- Internet2 Cloud Forum hosted at Stanford University. May 2024. Talk and Panelist.
- University of California, San Francisco Division of Clinical Informatics and Digital Transformation. March 2024. Talk.
- Hawaii International Conference on System Sciences (HICSS) 2024 Conference Workshop Keynote Address. January 2024. Talk.
- Stanford University CME/MS&E 218: Applied Data Science. November 2023. Guest Lecture.
- University of Arizona Department of Biomedical Engineering. October 2022. Talk.

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

Internal Invited Speaking Engagements

- UCSF Neuroscape Seminar. June 2026. Talk.
- UCSF Education Scholarship Conference (ESCape). March 2026. Talk.
- 14th Annual Bay Area Medical Informatics Society (BAMIS) Symposium. February 2026. Fireside Chat Facilitator.
- UCSF AI and Education Symposium. March 2026. Talk.
- UCSF CODEX Webinar. February 2026. Talk.
- UCSF Center for AIDS Prevention Studies "Thinking Friday". February 2026. Talk.
- UCSF NIH T32 CTSI Program Seminar. February 2026. Talk.
- PhD Program in Pharmaceutical Sciences and Pharmacogenomics Pizza Talks. January 2025. Talk.
- UCSF QBC Graduate Program Retreat. November 2025. Talk.
- UCSF Clinical Informatics, Data Science, and AI Pathway (a GME pathway). October 2025. Talk.
- PhD Program in Biomedical Informatics Pizza Talks. October 2025. Talk.
- PhD Program in Computational Precision Health Seminar. March 2025. Talk.
- Department of Medicine panel on "Balancing Innovation and Humanity in the Age of AI". February 2025. Panelist.

Mentorship and Advising

University of California, San Francisco

Postdocs: Arka Ghosh, Sameer Neupane

Clinical Informatics Fellows: Alexander Kostrinsky-Thomas

External Scholars: Aliya Tuktarova (Marshall Plan Scholar)

PhD (committee member, not advisor): Nikki Sisodia

Masters: Jiaxin Su (UCSF), Jack Neary (UCSF), Shizhe Li (Stanford)

Undergraduate: Agnik Banerjee (University of Maryland), Dana Kim (UC Berkeley), Allen Zhou (UC Berkeley), Faris Raza (UC Berkeley)

University of Hawai'i at Mānoa

Postdoc: Abdur Rasool (afterwards: postdoc at University of Hawaii)

PhD: Ali Kargarandehkordi, Christopher Slade, Yang Qian, Aditi Jaiswal, Zerine Tumpa, Yinan Sun (afterwards: postdoc at Ohio State), Kaiying Lin (afterwards: independent researcher at Academia Sinica in Taiwan)

Masters: 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)

Undergraduate: Jing Zheng (afterwards: MS student at UC Berkeley), Zian Zeng

High school: 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

Undergraduate: Cathy Hou, Essam Sleiman, Karina Samuel-Gama

High school: Nathan Chi, Anish Lakkapragada, Agnik Banerjee, Ritik Patnaik

Service

Service at University of California, San Francisco (UCSF)

- Co-Host, UCSF AI Seminar Series, 2025-Present
- Member, UCSF-UC Berkeley Computational Precision Health (CPH) PhD Program Admissions Committee, 2025-2026
- Member, UCSF Biological and Medical Informatics (BMI) PhD Program Admissions Committee, 2025-2026
- Member, Department of Epidemiology and Biostatistics Faculty Search Committee, 2025-2026
- Mentor, UCSF Visit-a-Mentor Program, 2025
- Interviewer, National Clinician Scholars Program (NCSP), 2025
- Member, Division of Clinical Informatics and Digital Transformation Faculty Search Committee, 2024-2025
- Member, MS committees in Training in Clinical Research (TICR) program, Department of Epidemiology and Biostatistics, 2025 – present
 - MS committees: Yuntao Zao

Service at University of Hawai'i at Mānoa

- Lead Organizer, AI Precision Health Institute Seminar Series
- Member, Information & Computer Sciences (ICS) Graduate Committee
- Member, Communication & Information Science (CIS) PhD Program Graduate Faculty
- Member, Information & Computer Sciences (ICS) Faculty Hiring Committee, 2022-2023 and 2023-2024
- Member, Information Technology Services Cyberinfrastructure Faculty Advisory Committee
- Member, Communication & Information Science (CIS) PhD Program Data Science Area Exam Committee

- Master's committees (not my students): Arianna Bunnell
- PhD committees (not my students): Yoshiki Takagi, Kai-Ying Lin, Bernadette Tix, Hannah Bacol Busch

External Leadership

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

Service in Hawai'i

- Speaker, Waipahu Intermediate School Career Fair

Paper Reviewing: Nature Communications (2026), npj Digital Medicine (2026), npj Mental Health Research (2025), JMIR Research Protocols (2025), IEEE Access (2025), Journal of Medical Internet Research (2018-2024), 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), 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:

- NIH Interventions to Prevent and Treat Addictions (IPTA) Study Section (4/22-4/23)
- NIH Health Services and Systems (HSS) Review Panel – 4 R01s (11/25)
- 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 (IPTA) 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:

- Machine Learning Instructor for InspiritAI in New Delhi, India (summer 2019), Bangkok, Thailand (summer 2023), and online (2020 - 2023)

- Instructor for Stanford Institutes of Medicine Summer Research Program (SIMR) Bioengineering Bootcamp (summer 2018)

Non-University Mentoring:

- Mentor, NIH AIM-Ahead CLINAQ Program 2024-2025 and 2025-2026
- Mentor, NIH AIM-Ahead Leadership Fellows Program 2023-2024
- Mentor for Polygence (2022 – present)
- Private middle and high school programming instructor (2019 – 2021)
- Programming tutor for Cardinal Tutors (2018 - 2019)
- Stanford Bioengineering REU summer mentor (2017 and 2018)

Conference Student Volunteering: CHI 2016, UbiComp 2017

Awards and Honors

- Weill Neurohub Investigator
- 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

Faculty Development and Training

University of California, San Francisco

- AI and Education Faculty Catalyst program (10% effort for 1 year), 2025-2026

University of Hawaii at Manoa

- Center for Pacific Innovations, Knowledge, and Opportunities (PIKO) Grant-writing
Uncovered: Maximizing Strategies, Help, Opportunities, Experiences (GUMSHOE) Program

Publications

This list is continuously out of date. Full and up-to-date list of papers is available [on Google Scholar](#).

Papers

- Tumpa, Zerine Nasrin, Md Rahat Shahriar Zawad, Lydia Sollis, Shubham Parab, Irene Y. Chen, and **Peter Washington**. "Quantifying device type and handedness biases in a remote Parkinson's disease AI-powered assessment." *npj Digital Medicine* 8, no. 1 (2025): 550.
- Sun, Yinan, Aditi Jaiswal, Christopher Slade, Kristina T. Phillips, Roberto M. Benzo, and **Peter Washington**. "Associations Between Social Determinants of Health and Adherence in Mobile-Based Ecological Momentary Assessment: Scoping Review." *Journal of Medical Internet Research* 27 (2025): e69831.
- Zawad, Md Rahat Shahriar, Irene Y. Chen, and **Peter Washington**. "Multi-Adversarial Debiasing in Clinical Artificial Intelligence." In *AMIA Annual Symposium Proceedings*, vol. 2024, p. 1492. 2025.
- Sun, Yinan, Aditi Jaiswal, Ali Kargarandehkordi, Christopher Slade, Roberto M. Benzo, Kristina T. Phillips, and **Peter Washington**. "Barriers to Designing Inclusive Ecological Momentary Assessment and Wearable Data Collection Protocols for AI-Driven Substance Use Monitoring in Hawai'i." In *Biocomputing 2026: Proceedings of the Pacific Symposium*, pp. 566-579. 2025.
- Benzo, Roberto M., Macy K. Tetrack, Jessica L. Krok-Schoen, Theodore M. Brasky, **Peter Washington**, Electra D. Paskett, Frank J. Penedo et al. "Digital information-seeking behaviors among cancer survivors: associations with sociodemographic determinants, cancer history, and perceived health." *Journal of Cancer Survivorship* (2025): 1-12.
- Huynh, Marie Amale, Aaron Kline, Saimourya Surabhi, Kaitlyn Dunlap, Onur Cezmi Mutlu, Mohammadmahdi Honarmand, Parnian Azizian, **Peter Washington**, and Dennis P. Wall. "Ensemble modeling of multiple physical indicators to dynamically phenotype autism spectrum disorder." *Algorithms* 18, no. 12 (2025): 764.
- Sollis, Lydia J., Dennis P. Wall, and **Peter Washington**. "Compact subsets of autism screening items predict clinical diagnoses with a machine learning analysis of the QCHAT-10." *Scientific Reports* 15, no. 1 (2025): 39091.
- Azizian, Parnian, Mohammadmahdi Honarmand, Aditi Jaiswal, Aaron Kline, Kaitlyn Dunlap, **Peter Washington**, and Dennis P. Wall. "Multimodal LLM vs. Human-Measured Features for AI Predictions of Autism in Home Videos." *Algorithms* 18, no. 11 (2025): 687.
- Lin, Kaiying, Abdur Rasool, Saimourya Surabhi, Cezmi Mutlu, Haopeng Zhang, Dennis P. Wall, and **Peter Washington**. "Aiding Large Language Models Using Clinical Scoresheets for Neurobehavioral Diagnostic Classification From Text: Algorithm Development and Validation." *JMIR AI* 4 (2025): e75030.
- Benzo, Roberto M., Anvitha Gogineni, Macy K. Tetrack, Rujul Singh, **Peter Washington**, Soledad Fernandez, Electra D. Paskett et al. "mHealth technologies in research studying cardiovascular health in cancer: A systematic review." *PLOS digital health* 4, no. 9 (2025): e0001027.
- **Washington, Peter**. "Personalization of AI Using Personal Foundation Models Can Lead to More Precise Digital Therapeutics." *JMIR AI* 4, no. 1 (2025): e55530.

- Slade, Christopher, Yinan Sun, Wei Cheng Chao, Chih-Chun Chen, Roberto M. Benzo, and **Peter Washington**. "Current challenges and opportunities in active and passive data collection for mobile health sensing: a scoping review." *JAMIA open* 8, no. 4 (2025): ooaf025.
- Benzo, Roberto M., Rujul Singh, Carolyn J. Presley, Macy K. Tetrick, Zachary L. Chaplow, Chloe M. Hery, Jane Yu, **Peter Washington**, ..., Emma Fortune. "Comparing the Accuracy of Different Wearable Activity Monitors in Patients With Lung Cancer and Providing Initial Recommendations: Protocol for a Pilot Validation Study." *JMIR research protocols* 14, no. 1 (2025): e70472.
- Kargarandehkordi, Ali, Shizhe Li, Kaiying Lin, Kristina T. Phillips, Roberto M. Benzo, and **Peter Washington**. "Fusing wearable biosensors with artificial intelligence for mental health monitoring: A systematic review." *Biosensors* 15, no. 4 (2025): 202.
- Ko, Aiden, Aaron Kline, Kaitlyn Dunlap, SaiMourya Surabhi, Parnian Azizian, **Peter Washington**, and Dennis P. Wall. "Abstention and Threshold Identification for Uncertainty Management in Clinical Decision Tools: A Case Study using Human-In-The-Loop Pediatric Autism Classifiers." In *Biocomputing 2026: Proceedings of the Pacific Symposium*, pp. 114-129. 2025.
- Qian, Yang, Ali Kargarandehkordi, Yinan Sun, Parnian Azizian, Onur Cezmi Mutlu, Saimourya Surabhi, Zain Jabbar, Dennis Wall, **Peter Washington**, and Huaijin Chen. "Hashtag2Action: Data Engineering and Self-Supervised Pre-Training for Action Recognition in Short-Form Videos." In *Proceedings of the IEEE/CVF International Conference on Computer Vision*, pp. 2965-2975. 2025.
- 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 Washington**. "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.
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Conference Posters and Abstracts

- Benjamin Ladd, Kristina Phillips, Sarah Jane Mah, **Peter Washington**. "Can Generative AI Reliably Recognize Change Talk: Comparison between ChatGPT and Human Coders." Collaborative Perspectives on Addiction (CPA) 2026.
- Thye Peng Ngo, **Peter Washington**, Jason M. Satterfield, Pamela M. Ling, Salomeh Keyhanie, Gregory M. Marcus, Nhung Nguyen. "Harnessing Generative AI and Chain-of-Thought to Automate Qualitative Analysis of Young Adult Vaping Cessation Interview Data." Society of Behavioral Medicine (SBM) Annual Meeting and Scientific Sessions 2026.
- Yinan Sun, Aditi Jaiswal, Aayush Nandkeolyar, Kaitlyn Dunlap, Dennis P Wall, **Peter Washington**. "Engineering and Secure Implementation of a Two-Player Video Game Diagnostic for ADHD and Autism." Pacific Symposium on Biocomputing (PSB) 2026 Posters.
- Yinan Sun, Aditi Jaiswal, Ali Kargarandehkordi, Christopher Slade, Roberto M. Benzo, Kristina T. Phillips, **Peter Washington**. "Barriers to Designing Inclusive Ecological Momentary Assessment and Wearable Data Collection Protocols for AI-Driven Substance Use Monitoring in Hawai'i." Pacific Symposium on Biocomputing (PSB) 2026 Posters.
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