ADITI JAISWAL

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EDUCATION

PhD, Information and Computer Sciences, Aug 2023 - *Present*
University of Hawai'i at Manoa

Master's of Science, Information and Computer Sciences, Awarded May 2023
University of Hawai'i at Manoa

Integrated MSc in Applied Physics, Awarded October 2019
Sardar Vallabhbhai National Institute of Technology, Surat, India

EXPERIENCE

Graduate Research Assistant, Hawai'i Digital Health Lab Aug 2022 - *Present*
University of Hawai'i at Manoa

- Using machine learning and natural language processing techniques for neurodevelopmental research and behavioral sciences.
- Using **Twitter API** for digital phenotyping studies.
- Using different diagnostic questionnaires for feature selection and its applications in behavioral and digital phenotyping using a human-in-the-loop crowdsourcing approach

Graduate Research Assistant, Sadowski Lab Jan 2021 - June 2022
University of Hawai'i at Manoa

- Contributed to deep learning based physics and atmospheric science projects.

Graduate Research Assistant, CI-TRACS fellowship Aug 2021 - June 2022
Hawai'i Data Science Institute, University of Hawai'i at Manoa

- Developed, implemented, and delivered a hands-on workshop centered around teaching high performance computing and deep learning skills. Workshop
- Mentor in the CITRUS Summer Program for undergraduate students.

Graduate Teaching Assistant Jan 2021 - *Present*
University of Hawai'i at Manoa

- Spring 2021, Summer 2021, Summer 2023 (ICS311- Algorithms); Fall 2022 (ICS111- Introduction to Computer Science I (Java)); Spring 2023 (ICS312 - Machine-Level and Systems Programming); Spring 2024 (ICS211- Introduction to Computer Science II (Java)).
- Help students with in-class problems and homework assignments.
- Assist with curriculum development and instruction of classes; grading classworks and homeworks

Graduate Researcher Jan 2019 - April 2019
European Organization for Nuclear Research (CERN), Geneva, Switzerland

- Master thesis on **Search for Heavy Neutral Leptons (HNL) using displaced vertex signature**.
- Data analysis to validate the hadron multiplicity in semi-leptonic decay of HNL using C++, Root and Pythia.
- Studied the data in ATLAS environment while looking out for various parameters and object reconstruction methods using Athena (ATLAS offline computing software framework).

ADDITIONAL PROJECTS

Peer Review Finder. Developed an application, for class project, to help researchers find other researchers to peer review papers before submitting to a conference or journal. Used ReactJS, NodeJS, Meteor and MongoDB. (Project description with links to GitHub repo)

Parallel Implementation of Gray Level Co-occurrence Matrix Construction using MPI. Class project - using MPI for parallel computation of gray-level co-occurence matrices, a precursory step to computation of the Haralick texture features. GitHub

PUBLICATIONS

Jaiswal A, Washington P. Using #ActuallyAutistic on Twitter for Precision Diagnosis of Autism Spectrum Disorder: Machine Learning Study. JMIR Form Res. 2024;8:e52660. Published 2024 Feb 14. doi:10.2196/52660

Jaiswal A, Kruiper R, Rasool A, Nandkeolyar A, Wall DP, Washington P. Digitally Diagnosing Multiple Developmental Delays Using Crowdsourcing Fused With Machine Learning: Protocol for a Human-in-the-Loop Machine Learning Study. JMIR Res Protoc. 2024;13:e52205. Published 2024 Feb 8. doi:10.2196/52205

Sun Y, Kargarandehkordi A, Slade C, **Jaiswal A**, Busch G, Guerrero A, Phillips KT, Washington P. Personalized Deep Learning for Substance Use in Hawaii: Protocol for a Passive Sensing and Ecological Momentary Assessment Study. JMIR Res Protoc. 2024;13:e46493. Published 2024 Feb 7. doi:10.2196/46493

Amin S, **Jaiswal A**, Washington PY, Pokhrel P. Investigating# vapingcessation in Twitter. American Journal of Health Behavior. 2023 Dec 31;47(6):104-12.

Jaiswal A, Wall DP, Washington P. Identifying a Minimal Set of Behavioral Features for the Differential Diagnosis of ASD And ADHD Using the National Survey of Children's Health. Submitted to American Medical Informatics Association (AMIA) 2024 Annual Symposium.

Azizian P, **Jaiswal A**, Honarmand M, Wall DP, Washington P. Advancing Scalable and Accessible ADHD Diagnosis: The Power of Crowdsourcing and the Path to Neurodevelopmental Digital Innovation. Submitted to American Medical Informatics Association (AMIA) 2024 Annual Symposium.