Lexington Whalen

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LINKEDIN https://www.linkedin.com/in/lxaw

GITHUB https://github.com/lxaw

RESEARCH INTERESTS

Robust and Scalable Machine Learning.

EDUCATION

Georgia Institute of Technology, Atlanta, GA, USA, Aug 2024–Present

Ph.D. Computer Science. Advisor: Prof. Yingyan (Celine) Lin.

University of South Carolina, Columbia, SC, USA, Jan 2024–Aug 2024.

M.S. Computer Science. Advisor: Prof. Homayoun Valafar.

Graduated under the Accelerated Master's program.

University of South Carolina, Columbia, SC, USA, August 2020–Dec 2023.

B.S. Computer Science. Advisors: Prof. Homayoun Valafar & Professor Stanley Dubinsky.

Graduated Summa Cum Laude with 4.0/4.0 GPA.

Toyo University, Tokyo, Japan, Apr 2023–Aug 2023.

Graduated with 4.26/4.3 GPA.

HONORS

NSF Graduate Research Fellowship, 2024–2029, NSF

Award recognizing and supporting outstanding graduate students in NSF-supported STEM disciplines. A 5 year fellowship providing three years of financial support, including a \$37,000 annual stipend and \$12,000 cost of education allowance.

Exchange Student Representative, 2023, Toyo University

Chosen by Toyo University to serve as the representative for exchange students during the farewell ceremony. Gave speech directed at faculty and students.

Top Scholar, 2020–2024, University of South Carolina

The university's highest undergraduate honor, and one of the top scholarships available. Offered to the top 40 in-state students each year entering the South Carolina Honors College.

Outstanding Senior Award, 2023, University of South Carolina

Awarded for being the best all-around senior in the graduating year of 2023. Elected by CSCE faculty and staff from among hundreds of other students.

AWARDS

John L Dales Scholarship, 2020–2024, SAG-AFTRA Foundation Marva Smalls Scholarship, 2022–2023, University of South Carolina Critical Language Scholar, 2023, United States Department of State NASA Space Grant Scholar, 2023, NASA

PROJECTS

THOR'S HAMMR, Jun 2024 - Present

Mentor: Dr. Yingyan (Celine) Lin.

Develop tiny ML methods to compensate for sensor degradation in the HAMMR device. Collaborate with a multidisciplinary team from Georgia Tech, Rice, UT Austin, Stanford, Carnegie Mellon, Northwestern, Houston, and Johns Hopkins.

mLIFE, Oct 2021 - Aug 2024

Mentors: Dr. Homayoun Valafar & Dr. Brie Turner-McGrievy.

Developed test website for study participant use using Django. Assist in development of production site with PHP's Symfony library. Perform data analysis with PyTorch, NumPy, Pandas. Prepare manuscripts for publication.

Wordification, Apr 2021 - Aug 2024

Mentor: Dr. Stanley Dubinsky.

Manage team of four undergraduate students, delineating tasks and directing the project. Apply for grants, journals, and conferences for project. Developed webapp with Django, and assisted with development of webapp using JavaScript's Redwood library. Present at conferences, and speak with educators and students to gather feedback and promote the project.

SWITCH, Oct 2022 - Oct 2023

Mentors: Dr. Homayoun Valafar & Dr. Brie Turner-McGrievy.

Develop website for participant use using PHP's Symfony library. Perform data analysis with PyTorch, NumPy, Pandas.

Human Activity Recognition, July 2022 - Oct 2023

Mentor: Dr. Homayoun Valafar.

Develop file transmission website using Django REST API and React. Design accompanying application for Android Mobile devices using Kotlin. Prepare manuscripts for publication.

Language Conflict Project, Apr 2021 - Oct 2022

Mentor: Dr. Stanley Dubinsky.

Wrote a method of automating language to language distance calculation. Performed analysis of documents to generate genre-specific language distance calculations, which were then used in subsequent publications.

PUBLICATIONS

Lexington Whalen, Homayoun Valafar. *DataDock: An Open Source Data Hub for Research*. In International Conference on Data Science (ICDATA'24) (2024).

Lexington Whalen, Dalton Craven, Shashank Comandur, Nathan Bickel, Homayoun Valafar, Stanley Dubinsky. *Wordification: A new way of teaching English spelling patterns.* In 2023 Congress in Computer Science, Computer Engineering, & Applied Computing (2023).

Anyssa Murphy, **Lexington Whalen**, Michael Gavin, John Frederick Bailyn, Jackson Ginn, Stanley Dubinsky. *On "historical unity" of Russian and Ukrainian: A linguistic perspective on language conflict and change*. In Proceedings of the Linguistic Society of America (2023).

Lexington Whalen, Gabrielle Turner-McGrievy, Matthew McGreivy, Andrew Hester, Homayoun Valafar. *On Creating a Comprehensive Food Database*. In International Conference on Computational Science and Computational Intelligence (2022).

LANGUAGES

English (Native), Japanese (Fluent, N1 Certified), Mandarin (Intermediate)