

EDUCATION

University of Hawai'i at Mānoa

- **Ph.D.** Linguistics (Language Documentation and Conservation) Matriculated August 2022
- **Coursework:** Phonetics; Advanced Phonology; Syntax; Grammatical Analysis; Techniques in Language Documentation; Language Revitalization and Acquisition; Language Documentation; Lexicography; Grammar Writing; Linguistics of Sign Language; Field Methods; Indonesian; Hawaiian Conversation; Database Systems.

Massachusetts Institute of Technology/Harvard Medical School (Health Sciences and Technology Division)

- **S.M.** Medical Engineering and Medical Physics In Progress
- **Funding:** *MIT Presidential Fellowship* (awarded to one graduate student per department)
- **Selected Coursework:** Human Pathology; Immunology; Numerical Computing; Global Health Informatics; Water, Climate Change, and Health; Gender and Development; Human Trafficking; Intermediate Hindi/Urdu; Intro Arabic.

University of Oxford

- **M.St.** General Linguistics and Comparative Philology: *Distinction*. July 2013
- **Funding:** *Sachs Scholarship*: "One of the highest honors bestowed on a Princeton undergraduate"
- **Selected Coursework:** Quantum Computing; Category Theory; Lambda Calculus; Computational Linguistics.

Princeton University

- **B.A.** Chemistry: *Highest Honors, Phi Beta Kappa, Sigma Xi Award for Outstanding Research*. June 2012
- **Certificate** in Chinese Language and Culture
- **Selected Coursework:** Advanced Quantum Chemistry; Advanced Thermodynamics; Intensive Advanced Chinese; Intensive Intermediate German; Intensive Ancient Greek; Systems Programming; Scientific Computing.

Additional (non-degree) coursework:

- **Linguistics Society of America Summer Institute 2023** (University of Massachusetts at Amherst): Computational Syntax; Head Driven Phrase Structure Grammar; Parallel Architecture; Web-based Language Documentation; Language Universals and Cognition; Cognitive Mechanisms of Language Change; Game Theoretic Pragmatics; Mayan Structure.
- **American Indian Language Development Institute** (University of Arizona, Virtual, Summer 2021): Introduction to Descriptive Native American Linguistics; Methods and Ethics in Linguistic Research.
- **The American Institute of Indian Studies** (Lucknow, Summer 2018): Intermediate Urdu.
- **Middlebury Language Schools** (Middlebury VT, Summer 2014): Intermediate French.
- **Beijing Normal University** (Beijing, Summer 2010): Intermediate Mandarin.
- **The Goethe Institute** (Munich, Summer 2009): Intermediate German.

SELECTED PROFESSIONAL EXPERIENCE

Language Documentation Training Center: *Co-Director*

January 2023-January 2024

Responsible for planning, executing, and overseeing weekly workshops that bring together student linguists and speakers of under-resourced languages. Coordinate speaker series, apply for grants, engage with donors, and maintain website. Host weekly dinners, a closing ceremony, and various fundraising events. <https://www.ldtc.org/>

Hawai'i Public Radio: *Evening Concert Host*

September 2022-Present

Plan and host a two-hour drivetime classical music show on HPR2, broadcast throughout the Hawaiian Islands.

Endangered Language Catalog: *ELCat Graduate Research Assistant*

September 2022-December 2022

Contributed to the maintenance of an endangered language repository. Liaised with language researchers worldwide.

The Winsor School: *Upper School Chemistry and Computer Science Teacher*

January 2020-August 2022

Taught introductory and honors-level high school chemistry and introductory computer science, as well as linguistics and international development electives, at one of the nation's top five all-girls' secondary schools.

Classical WCRB (99.5 FM): Weekend Host September 2019-Present
Announce upcoming classical pieces and provide real-time musical and historical context, reaching >500,000 listeners.

MIT D-Lab: Research Assistant, Trip Leader, Tour Guide September 2018-January 2020
Developed and implemented a two-week intensive STEM/sustainable design curriculum. Led a group of undergraduate students on an annual international development trip to rural Uganda. Conducted archival research and contributed to grant applications and reports for funding agencies. Led weekly hour-long tours of the D-Lab workspace.

The People's Archive of Rural India, ThoughtWorks: Journalist, Web Developer August 2016-July 2017
Worked as a technical consultant and apprentice journalist for one of India's foremost social commentators (P. Sainath). Traveled through India collecting stories about "the everyday lives of everyday people." <https://ruralindiaonline.org>

Microsoft: Software Engineer May 2015-June 2016
Worked as the interim owner of the entity stamping pipeline on the Entity Linking and Semantic Understanding team at Bing and as a full-stack developer on the Question and Answer team at PowerBI.

National Public Radio: NPR Labs Research and Development Intern January-May 2015
Developed a platform-agnostic measurement GUI that allows member stations to automatically enforce FCC-mandated loudness standards. (Showcased at the 2015 National Association of Broadcasters convention.)

Center for Advanced Study of Language (CASL): Research Assistant July-October 2013
Wrote debugging software (Python, XML, SFST) for an automated morphological parser used for processing text in languages critical to national security.

LINGUISTICS OUTREACH

- **Initiative for Decolonization, Equity, and Anti-Racism in Linguistics:** Inaugural Working Group Member. Contributed to the development of a reading/action group on ethics and equity in linguistic fieldwork.
 - **Language Documentation Training Center:** Language Mentor. Worked with a Palauan language consultant to develop a pedagogical website, providing cultural and linguistic information about the nation of Palau in the form of an interactive map. <https://ldtc-palauan.weebly.com/>
 - **International Conference on Language Documentation and Conversation:** Student Steering Committee. Served as liaison to the ComputEL team and assisted with organizing the film screening and social events.
 - **International Symposium on Malay and Indonesian Linguistics/the Languages of Java:** Student Steering Committee. Provided logistical support and assisted in updating and maintaining the conference website.
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TECHNICAL SKILLS

- **Programming languages:** Java; Python; C; MATLAB; HTML; CSS; JavaScript; Lua; Processing; Julia; SQL.
 - **Linguistics software and multimedia tools:** ELAN, FLEx, Lameta, Audacity, Adobe Premiere Pro.
 - Federal Communications Commission-approved amateur radio technician (KC2SGT).
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CONFERENCE PRESENTATIONS

- "Community Radio and Podcasting as a Vehicle for Language Revitalization." The Institute on Collaborative Language Research (CoLang), Arizona (June 2024). Two-week Workshop.
- "Linguistics Education as a Supplement to Second Language Learning: A Guided Introduction to Language Construction." Hawai'i Association of Language Teachers Conference, Honolulu, Hawai'i (April 2023). Workshop.
- "Auto-Transcription of Endangered Sign Languages Using Haar Cascade Classifiers":
 - Int'l Conference on Language Documentation and Conservation 8, Honolulu, Hawai'i (March 2023). Poster.
 - ComputEL 6, Virtual (March 2023). Talk.
- "SurgiBox" and "An Introduction to Digital Phenotyping for Global Health": Healthcare and Data Science Conference, Thimphu, Bhutan (October 2019). Invited talk.
- "Sustainable, Community-Driven Design for Global Poverty Alleviation": China Thinks Big Conference, Harvard University, Cambridge MA (April 2019). Talk.

- “An Introduction to Digital Phenotyping for Global Health” and “Quantum Computing Demystified”: KKKU mHealth Datathon in Khon Kaen, Thailand (Sept 2018). Invited talk.
- “Quantum Computing Demystified”: Women Who Code CONNECT Conference, Seattle WA (March 2016). Talk.
- “Using Diagrammatic Calculus and Conjecture Synthesis to Facilitate Reasoning about Quantum Information Flow.” Trinity College Cambridge, Cambridge UK (Feb 2014). Poster.

SELECTED PUBLICATIONS

- *Leveraging Data Science for Global Health*. Springer 2019.
 - “Introduction to Digital Phenotyping.” **Waring, O.M.**, Majumder, M.
 - “Sana.PCHR: Patient-Controlled Electronic Health Records for Refugees.” McSharry, P., Putra. A.P., Shin, R., **Waring, O.M.**, Majumder, M., McCague, N., Dagan, A., Paik, K., Celi, L.A.
- *Structural Topology Defines Protective CD8+ T cell Epitopes in the HIV Proteome*. Gaiha, G., Rossin, E., Urbach, J., Landeros. C., Collins, D.R., Nwonu, C., Muzhingi, I., Anahtar, M.N., **Waring, O.M.**, Piechocka-Trocha, A., Waring, M., Worrall, D.P., Newman, R.M., Power, K.A., Allen, T.M., Chodosh, J., Walker, B.D. *Science* (2019).

SELECTED HONORS AND AWARDS

Virginia Wing Professional Development Grant	2021
Kathryn Davis Fellowship for Peace: French, Arabic	2020, 2014
MIT IDEAS Global Challenge: \$10K Winner	2018
US Department of State Critical Language Scholarship: Urdu	2018
Hertz Fellowship Finalist	2018
Schwarzman Fellowship Finalist	2018
MIT Presidential Fellowship	2017
American India Foundation William J. Clinton Fellowship for Service in India	2016
ITO Foundation for International Education Exchange Scholarship	2013
Two-time Rhodes Scholar Finalist	2013, 2011
Grace Hopper Celebration of Women in Computing NSF Scholarship	2013
Friends of Todai Summer Research Grant	2012
Sigma Xi Book Award for Outstanding Research	2012
Daniel M. Sachs Class of 1960 Graduating Scholarship	2011
DAAD (German Academic Exchange Service) Research Scholarship	2011
Shapiro Prize for Academic Excellence (awarded to freshmen and sophomores)	2009-10, 2008-09

ADDITIONAL TEACHING EXPERIENCE

- General Linguistics and Artificial Intelligence (Instructor): University of Hawai’i at Mānoa Department of Linguistics, Spring 2024.
- Cambridge Coaching (Tutor): Chemistry, computer science, and GRE prep, Summer 2019-Present.
- Beautiful Patterns (Lead Instructor), a week-long course on computational thinking and basic computer science skills for adolescent girls in Mexico: Guadalajara (May 2018) and San Luis Potosí (May 2019).
- Research Methods in Global Health and Development (TA): MIT Department of Urban Studies and Planning, Fall 2018.
- Introduction to Linguistics (Instructor): MIT SPARK program, November 2018.
- Artificial Intelligence (TA): Oxford Department of Computer Science, Spring 2014 (Shortlisted for the Oxford University Student Union Student-Led Teaching Award).

LANGUAGES

- **Italian**: Conversational proficiency. 1st Place in 2006 National Italian Competition.
- **Mandarin Chinese**: Conversational proficiency. 1st prize, 2010 National Chinese Bridge Speech/Talent Contest.
- **Hindi/Urdu**: Conversational proficiency. U.S. Department of State Assessment: Advanced Low (B2), 2018.
- **German, Hawaiian**: Conversational proficiency.
- **Arabic, French, Indonesian**: Elementary proficiency.