

EDUCATION

University of California, Irvine

Ph.D. in Language Science

Ph.D. Program in Logic and Philosophy of Science

Irvine, CA

2023–now

2022–2023

University of Washington

M.S. in Computational Linguistics

Seattle, WA

2020–2022

University of California, San Diego

B.A. in Philosophy

La Jolla, CA

2016–2020

PEER REVIEWED PUBLICATIONS

1. **Imel, N.** & Hafen, Z. Citation-similarity relationships in astrophysics. in *AI for Scientific Discovery: From Theory to Practice Workshop (AI4Science @ NeurIPS)* (2023).
2. **Imel, N.**, Zaslavsky, N., Franke, M. & Futrell, R. Noisy population dynamics lead to efficiently compressed semantic systems. in *NeurIPS Workshop on Information-Theoretic Principles in Cognitive Systems Workshop (InfoCog @ NeurIPS)* (2023).
3. **Imel, N.** The evolution of efficient compression in signaling games. in *Proceedings of the 45th Annual Meeting of the Cognitive Science Society* (2023).
4. **Imel, N.** & Steinert-Threlkeld, S. Modals in natural language optimize the simplicity/informativeness trade-off. in *Proceedings of Semantics and Linguistic Theory (SALT 32)* (2022).
5. Guo, Q., **Imel, N.** & Steinert-Threlkeld, S. A Database for Modal Semantic Typology. in *Proceedings of the 4th Workshop on Research in Computational Linguistic Typology and Multilingual NLP* (Association for Computational Linguistics, Seattle, Washington, July 2022).
6. Steinert-Threlkeld, S., **Imel, N.** & Guo, Q. A semantic universal for modality. *Semantics and Pragmatics*. <https://doi.org/10.3765/sp.16.1> (2023).

PREPRINTS

7. **Imel, N.**, Guo, Q. & Steinert-Threlkeld, S. An efficient communication analysis of modal typology. <https://ling.auf.net/lingbuzz/007392> (2023).
8. Uegaki, W., Mucha, A., **Imel, N.** & Steinert-Threlkeld, S. Deontic priority in the lexicalization of impossibility modals. <https://psyarxiv.com/h63y9/> (2023).

TALKS AND PRESENTATIONS

Citation-similarity relationships in astrophysics literature

Santa Fe Institute Workshop on Intelligence and Representation (Cambridge, UK)

8/18/23

Modals in natural language optimize the simplicity/informativeness trade-off

Semantics and Linguistic Theory (Mexico City, CDMX)

6/08/22

Experiments in Linguistic Meaning (Philadelphia, PA)

5/18/22

The evolution of efficient compression in signaling games

University of Tübingen Linguistics Colloquium (virtual)

MIT Computational Psycholinguistics Lab (Cambridge, MA)

7/04/23

10/17/23

SOFTWARE

The artificial language toolkit (ALTK)

With Shane Steinert-Threlkeld. ([link](#)).

Sciterra: a library for topographic analyses of scientific literature

With Zachary Hafen. ([link](#)).

AWARDS

Santa Fe Institute Complexity GAINs Summer Fellowship	2023
North American Summer School for Logic, Language and Information Student Fellowship (USC)	2023
Merit Fellowships (UC Irvine School of Social Sciences)	2022
Accepted to Summer School in Logic and Formal Epistemology (CMU)	2021
Best paper “Desire Semantics”, selected for UC San Diego undergraduate philosophy journal <i>Intuitions</i>	2020

TEACHING

• Introduction to Linguistics (LSCI 3)	Fall 2023
• Basic Economics I (ECON 20A)	Spring 2023
• Introduction to Symbolic Logic (LPS 30)	Winter 2023

SERVICE

• Ad-hoc reviewing: InfoCog Workshop @ Neurips, EvoLang, California Annual Meeting of Psycholinguistics	2023
• Department Colloquium Committee	2023
• Organizing Committee for Society for Computation in Linguistics Conference	2023

SELECTED GRADUATE COURSEWORK

Experimental Methods	Xin Xie
Computability Theory and Incompleteness	Toby Meadows
Game Theory in the Philosophy of Biology	Cailin O'Connor
Information Theory and Language	Richard Futrell
Mathematical Logic	Kai Wehmeier
Set Theory	Toby Meadows
Social Dynamics	Brian Skyrms and Simon Huttegger
Philosophy of Science Foundations	Kyle Stanford
Deep Learning for NLP	Shane Steinert-Threlkeld
Machine Learning	Sewoong Oh and Simon Du
Advanced Statistical Methods for NLP	Fei Xia
NLP Systems and Applications	Gina Anne-Levow

Deep Processing Techniques For NLP
Shallow Processing Techniques For NLP
Multilingual Grammar Engineering
Syntax for Computational Linguistics
Formal Semantics II
Phonetics

Shane Steinert-Threlkeld
Fei Xia
Emily Bender
Emily Bender
Toshiyuki Ogiwara
Marina Oganyan

EXPERIENCE

Posh Technologies

NLP Research Intern

Boston, MA

Summer 2021

Performed error analysis experiments of chatbot and presented results to NLP team; wrote unit tests for intent-classification software; curated large datasets and pipelines for ML model evalutaion