ROBERT M. HOPKINS

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University Address: 4313 Knox Rd, Apt 512, College Park, MD 20742

ABOUT:

Computer scientist, linguist. Passionate about the intersection of human language and computation. Interested in applying my skills in linguistic analysis and programming to advance understanding of human language and language technology.

EDUCATION:

University of Maryland, College Park – College Park, MD B.S., B.A.

Anticipated May 2026

GPA: 4.0

• B.S. in Computer Science – Machine Learning

- o Coursework: Discrete Structures, Programming Languages, etc.
- B.A. in Linguistics Grammar and Cognition
 - o Coursework: Syntax, Phonology, Computational Ling., etc.

PERSONAL PROJECTS:

Emergence of Lexicons in Homesign Systems Model Java, Python

May 2023, May 2024

- Successfully replicated simulation based on the "Modeling the Emergence of Lexicons in Homesign Systems" (2013) paper, aligning with the methodologies detailed in the paper, and substantiated findings congruent with the original study
- Modified original program to model natural language change in more complex networks of interactions and to represent signs in strings

Conlang Tools *Python*

October 2023

- Developed tools to expedite my development of constructed languages (conlangs).
- Helps model natural sound change evolution in languages, lexicon development, and more.

WORK EXPERIENCE:

ARLIS CPT-DF Intern

August 2024–Current

- Developing an agent-based model of the U.S. innovation economy to serve as a 'policy lab' to educate and inform government policymakers
- Providing insight into the effects of specific past U.S. economic policies

ARLIS RISC Summer Intern

June 2024-August 2024

- Researched remotely with team to synthesize recommendations on U.S. innovation policy to protect IP while promoting innovation
- Presented in a classified environment to intelligence community professionals

Computer Science TA CMSC132 Object Oriented Programming II (Java)

September 2023–December 2023

- Provided individualized support to students during office hours review sessions, addressing questions related to general programming topics and projects and working to prepare students for exams
- Graded assignments, exams, projects, providing feedback to improve students' understanding

RESEARCH EXPERIENCE:

Undergraduate Research Assistant Semantics of majority quantifiers & algorithms

September 2024–Present

• Experimenting to investigate the interpretation of quantifiers 'more' and 'most' to understand the algorithm humans use to determine truth of a proposition

Undergraduate Research Assistant LMs are not good proxies for human language learning September 2023–Present

- Leading programming efforts on research investigating how language models learn syntactic constraints and whether their generalizations align with human language understanding
- Co-authoring paper, actively participating in writing and editing processes, ensuring clarity and accuracy of technical content
- Presenting a talk with team at 49th BU Conference on Language Development, November 2024

ADDITIONAL:

University of Maryland Honors College, University Honors

2022-2026

University of Maryland Dean's Scholarship

2022-2024

PULSAR Undergraduate Program – University of Maryland Language Science Center

2024

Secret Clearance – U.S. Department of Defense

SKILLS:

Java, C, Python, some HTML experience. Willing and eager to learn