Alexander Martin

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EDUCATION

Johns Hopkins University — **Baltimore, Maryland**
Ph.D. in Computer Science — Expected May 2028
Advisor: Dr. Benjamin Van Durme

Johns Hopkins University — **Baltimore, Maryland**
M.S. in Computer Science — Expected May 2026
Advisor: Dr. Benjamin Van Durme

University of Rochester — **Rochester, New York**
B.S. in Computer Science; Highest Honors in Research — May 2024
Advisor: Dr. Aaron Steven White, Dr. Jiebo Luo
Thesis: Human-Centric Event Representations at the Document Level and Beyond

RESEARCH

Human Language Technology Center of Excellence — Summer 2024
Researcher Intern; Advised by Dr. Benjamin Van Durme
Researched extracting information about events from videos and aligned text.

Formal And Computational Semantics Lab — May 2022 – May 2024
Undergraduate Researcher; Advised by Dr. Aaron Steven White
Researched extracting and summarizing information about events from large unstructured text.

Visual Intelligence & Social Multimedia Analytics Lab — Aug. 2022 – May 2024
Undergraduate Researcher; Advised by Dr. Jiebo Luo
Researched methods for understanding and extracting information from videos and methods for generating images to inform research in evolutionary biology.

Environmental Protection Agency — Summer 2024 – Fall 2024
Research Intern; Advised by Dr. Andrea Kirk
Developed methods for relative importance analysis to measure the effects of PFAS exposure on humans and their health, including cancer risk and bone mineral density.

Rochester Human Computer Interaction Lab — Nov 2022 – April 2024
Research Assistant; Advised by Dr. Ehsan Hoque
Created synthetic datasets to improve performance of hand pose estimation models for diagnosing Parkinson's Disease in virtual health appointments.

HONORS, AWARDS, & GRANTS

National Science Foundation, **Graduate Research Fellowship ($37,000/yr)** — 2024 – 2027
University of Rochester, **Charles L. Newton Prize ($2,010)** — 2024
CRA, **Outstanding Undergraduate Research Award Honorable Mention** — 2024
University of Rochester, **Research Presentation Grant ($1,300)** — 2023
University of Rochester, **Deans' Award in Engineering and Mathematics** — 2023
University of Rochester, **River Campus Libraries Data Set Grant ($850)** — 2023
University of Rochester, **Residential Life Best Program of the Year** — 2023
University of Rochester, **Make It Happen Grant ($500)** — 2022

PUBLICATIONS

W. Gantt, **A. Martin**, P. Kuchmiichuk, A.S. White "Event-Keyed Summarization" (ArXiv, 2024)

S. Vashishtha, **A. Martin**, W. Gantt, B. Van Durme, A.S. White "FAMuS: Frames Across Multiple Sources" (NAACL, 2024)

A. Martin, H. Zheng, J. An, J. Luo "Jurassic World Remake: Bringing Ancient Fossils Back to Life via Zero-Shot Long Image-to-Image Translation" (MM 2024, Oral Presentation)

S. Barham, et al. (incl **A. Martin**) "MegaWika: Millions of reports and their sources across 50 diverse languages" (ArXiv, 2023)

A. Kirk, A. DeStafano, **A. Martin**, K. Kirk, C. Martin "A New Interpretation of Relative Importance on An Analysis of Per and Polyfluorinated Alkyl Substances (PFAS) Exposures on Bone Mineral Density" (IJERPH 2023)

TALKS

Peer Workshop: *FAMuS: Frames Across Multiple Sources (Slides)* Mar. 2024
ACM Multimedia: *Jurassic World Remake (Slides)* Oct. 2023

TEACHING EXPERIENCE

University of Rochester

Introduction to Artificial Intelligence (CSC 242) Spring 2023
Data Structures and Algorithms (CSC 172) Spring 2022, Fall 2022
Introduction to Computer Science (CSC 171) Fall 2021
Math and Computer Science Tutor Fall 2021 – Fall 2023

LEADERSHIP & VOLUNTEERING

University of Rochester, Residential Life:
Resident Advisor Aug. 2021 – May 2024

STEM Initiative **Rochester, New York**
Education Mentor Jan. 2021 – Dec. 2023

SKILLS

Programming Languages: Python, Java, C++, Bash, **Familiar:** C, MATLAB, JavaScript, R
Tools: PyTorch, Hugging Face, Amazon Mechanical Turk, Docker, AWS
Soft Skills: Small group instruction, conflict resolution