

## Alexander Martin

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### EDUCATION

<b>Johns Hopkins University</b> <i>Ph.D. in Computer Science</i> <i>Advisor: Dr. Benjamin Van Durme</i>	<b>Baltimore, Maryland</b> Expected May 2029
<b>University of Rochester</b> <i>B.S. in Computer Science; Highest Honors in Research</i> <i>Advisor: Dr. Aaron Steven White, Dr. Jiebo Luo</i> <i>Thesis: Human-Centric Event Representations at the Document Level and Beyond</i>	<b>Rochester, New York</b> May 2024

### RESEARCH

<b>Human Language Technology Center of Excellence</b> <i>Researcher Intern; Advised by Dr. Benjamin Van Durme</i> Researched extracting information about events from videos and aligned text and video retrieval.	Summer 2024
<b>Formal And Computational Semantics Lab</b> <i>Undergraduate Researcher; Advised by Dr. Aaron Steven White</i> Researched extracting and summarizing information about events from large unstructured text.	2022 – 2024
<b>Visual Intelligence &amp; Social Multimedia Analytics Lab</b> <i>Undergraduate Researcher; Advised by Dr. Jiebo Luo</i> Researched methods for understanding and extracting information from videos and methods for generating images to inform research in evolutionary biology.	2022 – 2024
<b>Environmental Protection Agency</b> <i>Research Intern; Advised by Dr. Andrea Kirk</i> 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.	Summer 2022 – Fall 2022
<b>Rochester Human Computer Interaction Lab</b> <i>Research Assistant; Advised by Dr. Ehsan Hoque</i> Created synthetic datasets to improve performance of hand pose estimation models for diagnosing Parkinson's Disease in virtual health appointments.	2022 – 2024

### HONORS, AWARDS, & GRANTS

National Science Foundation, <b>Graduate Research Fellowship</b>	2024 – 2029
University of Rochester, <b>Charles L. Newton Prize</b>	2024
University of Rochester, <b>Senior Research Award</b>	2024
University of Rochester, <b>Research Presentation Grant</b>	2024
University of Rochester, <b>Dean's Award in Engineering and Mathematics</b>	2024
CRA, <b>Outstanding Undergraduate Research Award Honorable Mention</b>	2024
University of Rochester, <b>Research Presentation Grant</b>	2023
University of Rochester, <b>Dean's Award in Engineering and Mathematics</b>	2023
University of Rochester, <b>River Campus Libraries Data Set Grant</b>	2023
University of Rochester, <b>Residential Life Best Program of the Year</b>	2023
University of Rochester, <b>Make It Happen Grant</b>	2022

### PUBLICATIONS

- [1] K. Sanders\*, R. Kriz\*, D. Etter\*, H. Recknor, **A. Martin**, C. Carpenter, J. Lin, B. Van Durme "Grounding Partially-Described Events in Multimodal Data" (EMNLP Findings, 2024)
- [2] W. Gantt, **A. Martin**, P. Kuchmiichuk, A.S. White "Event-Keyed Summarization" ([EMNLP Findings](#), 2024)
- [3] S. Vashishtha, **A. Martin**, W. Gantt, B. Van Durme, A.S. White "FAMuS: Frames Across Multiple Sources" ([NAACL](#), 2024, [Poster](#))

- [4] M. Hasan, C. Ozel, N. Long, **A. Martin**, S. Potter, T. Adnan, S. Lee, A. Zadeh, E. Hoque “Hi5: 2D Hand Pose Estimation with Zero Human Annotation” ([ArXiv](#) 2024)
- [5] **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](#))
- [6] S. Barham, O. Weller, M. Yuan, K. Murray, M. Yarmohammadi, Z. Jiang, S. Vashishtha, **A. Martin**, A. Liu, A.S. White, J. Boyd-Graber, B. Van Durme ““MegaWika: Millions of reports and their sources across 50 diverse languages” ([ArXiv](#), 2023)
- [7] 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

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<b>FAMuS: Frames Across Multiple Sources</b> ( <a href="#">Video</a> , <a href="#">Poster</a> )	June 2024
<i>Main Conference; NAACL 2024</i>	<i>Poster</i>
<b>FAMuS: Frames Across Multiple Sources</b> ( <a href="#">Slides</a> )	Mar. 2024
<i>3<sup>rd</sup> Workshop on Processing and Evaluating Event Representations; PEER 2024</i>	<i>Talk</i>
<b>Jurassic World Remake</b> ( <a href="#">Slides</a> )	Oct. 2023
<i>Main Conference; ACM Multimedia 2024</i>	<i>Talk</i>

## 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

## PROFESSIONAL SERVICE

### Reviewing

NeurIPS 2024

### University of Rochester: Residential Life

**Rochester, New York**

*Resident Advisor*

Aug. 2021 – May 2024

Advised students living in residence halls on academics, mental health, and social conflicts.

### STEM Initiative

**Rochester, New York**

*Education Mentor*

Jan. 2021 – Dec. 2023

Taught programming fundamentals for projects with Raspberry Pi and Lego Robotics.

## 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