

WILLIAM GANTT WALDEN

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EDUCATION

- University of Rochester**, Ph.D. Computer Science June 2024
- Advisor: Aaron Steven White
 - Thesis: Document-Level Event Description and Decomposition
- University of Rochester**, M.S. Computer Science May 2021
- Advisor: Aaron Steven White
- Bowdoin College**, B.A. Computer Science (honors), *cum laude*, *Phi Beta Kappa* May 2017
- Advisors: Clare Bates Congdon and Stephen Majercik
 - Thesis: An Investigation of Genetics-Based Machine Learning as Applied to Global Crop Yields

INTERESTS

Natural Language Understanding, Information Extraction, Machine Learning

PUBLICATIONS

*Denotes equal contribution. **N.B.:** Gantt was my pre-marriage last name.

- **William Gantt** and Aaron Steven White. 2024. [Small Models Are \(Still\) Effective Cross-Domain Argument Extractors](#). *Under Review*.
- **William Gantt**, Alexander Martin, Pavlo Kuchmiichuk, Aaron Steven White. 2024. [Event-Keyed Summarization](#). *Under Review*.
- Siddharth Vashishtha, Alexander Martin, **William Gantt**, Benjamin Van Durme, Aaron Steven White. 2024. [FAMuS: Frames Across Multiple Sources](#). *North American Chapter of the Association for Computational Linguistics (NAACL)*.
- **William Gantt**, Shabnam Behzad, Hannah YoungEun An, Yunmo Chen, Aaron Steven White, Benjamin Van Durme, Mahsa Yarmohammadi. 2024. [MultiMUC: Multilingual Template Filling on MUC-4](#). *European Chapter of the Association for Computational Linguistics (EACL)*.
- **William Gantt**, Reno Kriz*, Yunmo Chen*, Siddharth Vashishtha*, Aaron Steven White. 2023. [On Event Individuation for Document-Level Information Extraction](#). *Findings of the Association for Computational Linguistics: EMNLP 2023*.
- Yunmo Chen*, **William Gantt***, Tongfei Chen*, Aaron Steven White, Benjamin Van Durme. 2023. [A Unified View of Evaluation Metrics for Structured Prediction](#). *Empirical Methods in Natural Language Processing (EMNLP)*.
- Yunmo Chen, **William Gantt**, Weiwei Gu, Tongfei Chen, Aaron Steven White, Benjamin Van Durme. 2023. [Iterative Document-Level Information Extraction via Imitation Learning](#). *European Chapter of the Association for Computational Linguistics (EACL)*. **Outstanding Paper Award**.
- **William Gantt**, Lelia Glass, Aaron Steven White. 2022. [Decomposing and Recomposing Event Structure](#). *Transactions of the Association for Computational Linguistics (TACL)*.
- Benjamin Kane, **William Gantt**, Aaron Steven White. 2021. [Intensional Gaps: Relating doxasticity, bouleticity, veridicality, factivity, and neg-raising](#). *Semantics and Linguistic Theory (SALT)*.
- **William Gantt***, Benjamin Kane*, Aaron Steven White. 2020. [Natural Language Inference with Mixed Effects](#). *The Ninth Joint Conference on Lexical and Computational Semantics (*SEM)*.

WORK EXPERIENCE

Microsoft - Semantic Machines

Research Intern

Summer 2022

Remote

- Investigated and implemented techniques for calibration and constrained decoding for few-shot semantic parsing using large language models (GPT-3, Codex); improved top- k parsing accuracy by several points absolute on multiple datasets.

Okta

Software Engineer

July 2017 - July 2019

San Francisco, CA

- Led development of Okta's authentication and authorization pipeline, including new frameworks for configurable authorization policies and HTTP callbacks.
- Developed an out-of-the-box self-service registration platform for web apps.

SERVICE ---

Teaching Assistantship

- Machine Learning (CSC 246/446): Spring 2021
- Statistical Speech and Language Processing (CSC 248/448): Fall 2020
- Machines and Consciousness (CSC 191/291): Spring 2020

Mentorship

- Alexander Martin (B.S. 2024; now Ph.D. student at Johns Hopkins)
- Weiwei Gu (M.S. 2022; now Ph.D. student at Arizona State)

Department Service

- CS Department Graduate Student Representative: 2023-2024
- CS Department Ph.D. Admissions Committee: 2023-2024

Peer Reviewing

- ACL: 2023
- EACL: 2023-2024
- EMNLP: 2022-2023
- NAACL: 2021
- ACL Rolling Review: 2021-

PROJECTS & DATA ---

Decompositional Semantics Initiative

- Dataset and toolkit for commonsense semantic annotations and semantic graphs on top of Universal Dependencies on the English Web Treebank.
- Core contributor to version 2.0 of the Decomposition Toolkit.
- Lead developer of UDS-EventStructure dataset ([1]).

MegaIntensionality

- Co-developer of the MegaIntensionality dataset—a large collection of lexically-triggered belief and desire inferences across 725 English clause-embedding verbs ([2]).

IARPA BETTER

- Multilingual information extraction (IE) and retrieval (IR) competition funded by IARPA.
- One of the lead developers on the IE team led by Benjamin Van Durme at Johns Hopkins.
- Led to multiple publications at top NLP venues ([3], [4], [5]).

MultiMUC

- Lead developer of the MultiMUC corpus, a set of translations of the classic MUC-4 template filling dataset into Arabic, Farsi, Mandarin, Korean, and Russian.
- The only publicly available multilingual template filling corpus ([6]).

MUCSUM

- Lead developer of the MUCSUM dataset, a collection of summaries of all events in the MUC-4 corpus ([7]).

HONORS & AWARDS

Sproull Fellowship

University of Rochester, September 2019

- The University of Rochester's most prestigious graduate fellowship, awarded to fewer than a dozen incoming PhD students on the basis of an outstanding academic record and unusual potential for graduate study.

NSF Research Traineeship

University of Rochester, September 2019

- Full-stipend one-year fellowship awarded to a small set of PhD students in Computer Science and Brain and Cognitive Sciences, focused on computationally-oriented, interdisciplinary research training.

Computer Science Senior-Year Prize

Bowdoin College, May 2017

- Awarded to the student who has achieved the highest distinction in the major program in computer science.

INVITED TALKS

Event-Keyed Summarization

Cornell U., April 2024

- Third Workshop on Processing and Evaluating Event Representations (PEER 2024)

Structured Representation and Prediction for Document-Level IE

U. Rochester, April 2023

- Second Workshop on Processing and Evaluating Event Representation (PEER 2023)

Decomposing and Recomposing Event Structure

Cornell U., April 2022

- First Workshop on Processing and Evaluating Event Representations (PEER 2022)

SKILLS

Programming Languages

Python (expert)

Java, R, MySQL, C, C++, Bash (some experience)

Tools & Libraries

NumPy, Pandas, PyTorch, HuggingFace, AllenNLP, AI2 Tango, Amazon Mechanical Turk, Git, Vim

SELECTED COURSEWORK

AI & NLP

- [AGI Safety Fundamentals](#), [AI Governance](#), Deep Learning, Machine Learning, Machine Vision, Robotics, Statistical Speech and Language Processing

Computer Science

- Computational Complexity, Computer Networks, Databases, Data Management Systems, Data Structures, Design and Analysis of Efficient Algorithms, GIS Algorithms & Data Structures, Introduction to Systems, Optimization & Uncertainty, Programming Languages

Mathematics

- Discrete Mathematics, Linear Algebra, Multivariate Calculus, Probability, Random Processes, Statistics