WILLIAM GANTT

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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.

- **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 Summer 2022
Research Intern *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 July 2017 - July 2019
Software Engineer *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 Decomp 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