WILLIAM GANTT

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EDUCATION

University of Rochester, M.S., Ph.D. Computer Science — Anticipated Spring 2024

- Advisor: Aaron Steven White
- Coursework: *Machine Learning, Machine Vision, Statistical Speech and Language Processing, Deep Learning, Data Management Systems, Semantic Analysis, Formal Semantics, Syntactic Theory, Computational Complexity, Programming Languages, Design and Analysis of Efficient Algorithms*, *AGI Safety Fundamentals* (external)

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*
- Coursework: *Robotics, Optimization and Uncertainty, Introduction to Systems, Computer Networks, GIS Algorithms & Data Structures, Databases, Algorithms, Data Structures, Introduction to Computer Science, Linear Algebra, Statistics, Probability, Mathematical Reasoning, Multivariate Calculus*

INTERESTS

Natural language understanding, information extraction, machine learning

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 autoregressive 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 on Okta's authentication and authorization pipeline by developing new policy and HTTP callbacks frameworks.
- Developed an out-of-the-box self-service registration platform for web apps.

SERVICE

Teaching and Mentoring
Teaching Assistant

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

Reviewing

- Winter - Spring 2023: ACL 2023
- Fall - Winter 2022: EACL 2023
- Summer - Fall 2022: EMNLP 2022
- Fall 2021 - Winter 2022: ACL Rolling Review (ad-hoc)
- Spring 2021: NAACL-HLT 2021 (emergency)

PUBLICATIONS

- Yunmo Chen, **William Gantt**, Weiwei Gu, Tongfei Chen, Aaron Steven White, Benjamin Van Durme. Iterative Document-Level Information Extraction via Imitation Learning. 2023. *European Chapter of the Association for Computational Linguistics (EACL)*. **Outstanding Paper Award.**

- **William Gantt**, Reno Kriz, Yunmo Chen, Siddharth Vashishtha, Aaron Steven White. On Event Individuation for Document-Level Information Extraction. 2022. *Under Review.*
- **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).*

PROJECTS AND DATA

Decompositional Semantics Initiative

- Dataset and toolkit for commonsense semantic annotations and semantic graphs on top of Universal Dependencies on the English Web Treebank.
- Co-lead developer on version 2.0 of the Decomp Toolkit.
- Lead author of UDS-EventStructure dataset.

MegaIntensionality

- Co-developer of a large dataset of lexically-triggered belief and desire inferences across 725 English clause-embedding verbs. Part of the MegaAttitude project.

IARPA BETTER

- Multilingual information extraction (IE) and retrieval (IR) competition funded by IARPA.
- One of the lead developers of the IE models for team led by Benjamin Van Durme at Johns Hopkins.

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

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 (familiar); R, MySQL, C, C++, Bash (some experience)
Tools & Libraries	NumPy, Pandas, PyTorch, Hugging Face, AllenNLP, AI2 Tango, Amazon Mechanical Turk, LaTeX, Git, Vim