

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*

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

- 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. 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 31)*.
- **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](#)

- Lexicon-scale 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's lab 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

Decomposing and Recomposing Event Structure

Cornell University, April 2022

Talk given at the first Workshop on Meaning in Language

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, L^AT_EX, Git, Vim