

Elizabeth Schaefer

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EDUCATION

Yale University

New Haven, CT

Bachelor of Science, Computer Science; Bachelor of Arts, Humanities (Literature Conc.)

Aug. 2022 – May 2026

GPA: 3.78/4.00 GRE: 168Q 169V

PUBLICATIONS AND PATENTS

Schaefer, E. and Roberts, K., “Gender-Neutral Large Language Models for Medical Applications: Reducing Bias in PubMed Abstracts,” 2025. *Proceedings of the 24th Workshop on Biomedical Natural Language Processing (BioNLP 2025) at ACL 2025*, pages 114-123.

Schaefer, E., Li, X., Wang, B., Ghiassi, S., Gibbs, K.E., Pai, S.I., Vallabhajosyula, P., Krumholz, H., Schneider, E., Cohan, A., Ong, C.S., “Enhancing Complex Surgical Decision-Making with State-of-the-Art Reasoning Models.” Accepted for oral presentation at the *21st Annual Academic Surgical Congress (ASC)*, February 2026. To be presented by **Schaefer, E.**

Schaefer, E. and Schaefer, A. J., “Maximizing the Score in ‘Ticket To Ride’,” 2025. *IEEE Transactions on Games*. <https://ieeexplore.ieee.org/document/11271185>.

Lee, Y., **Schaefer, E.**, Wang, B., Li, X., Butensky, S., Flom, E., Zhou, R., Duffy, A., Gibbs, K., Schneider, E., Cohan, A., Ong, C.S., “Assessing the Reasoning Capabilities of State-of-the-Art Large Language Models in Complex Surgical Decision-Making Following Admission for Inguinal Hernia Repair.” Accepted at *SAGES*, March 2026.

Aguirre, N., Wang, B., **Schaefer, E.**, Huang, J., Li, X., Kolamuri, S.R., Ying, L., Li, X., Ang, S.S., Schneider, E., Pai, S.I., Cohan, A., Ong, C.S., “Hippocrates-Karkinos-o1: An Enhanced Model for Oncology Decision Support and Guideline-Aware Reasoning with Self-Refinement and Guideline-Informed Retrieval.” Accepted at *NCCN*, March 2026.

Ong, C.S., Cohan, A., Wang, B., **Schaefer, E.**, Schneider, E. “System and Method for Clinical Reasoning,” 2025. *U.S. Provisional Patent, No. 63,932,193*.

EXPERIENCE

Undergraduate Researcher

September 2024 – Present

Yale NLP Lab, Yale University

- Conducting research in the Yale NLP lab under the mentorship of Professor Arman Cohan.
- Previously worked on retrieval-augmented generation (RAG) for medical question answering, now researching chain-of-thought (CoT) reasoning in large language models for surgical tasks.

Software Engineering Intern

June 2025 – August 2025

Capital One, Intelligent Foundations and Experiences (IFX) Team

New York, New York

- 2025 Technology Internship Program (TIP). Used machine learning techniques to create an alerting system for SQL query costs, integrated system into technical stack.

NLP Research Intern

May 2024 – September 2024

McWilliams School of Biomedical Informatics, UTHealth

Houston, TX

- Developed a Llama-3.1-405b pipeline to identify and mitigate gender biases in medical training data. Achieved significant improvements in reducing occupational biases within multiple BERT models.
- Won a “Best Poster” award for presenting this work at the concluding research symposium.

Head Teaching Assistant

May 2024 – January 2025

Teaching Assistant

May 2023 – May 2024

CS50, Yale University

- Led a discussion section of 15+ students and held office hours supporting 30+ students.
- Headed a team of 35 teaching assistants and coordinated core course logistics for a student enrollment of 150-200.

College President

March 2024 – September 2025

Morse College Council, Yale University

- Managed and allocated funds of \$38,000 while serving as the president of a residential college at Yale. Planned and executed college-wide events, such as formals, trips, and volunteering efforts, for 600+ undergraduates.

Undergraduate Peer Advisor

August 2025 – Present

Department of Computer Science, Yale University

- One of four Yale students selected by the department faculty to host weekly office hours advising undergraduate students on coursework, career decisions, and study strategies.

Publicity Chair

August 2024 – Present

Yale Women in Computer Science

- Organize and promote events for the undergraduate society of women in Yale CS.

Student Recruitment Coordinator

January 2023 – Present

Yale Admissions

- Collaborate with Yale Admissions officers to enhance prospective and matriculating student experiences; interview and evaluate applicants during the admissions process. Head of graphic design.

PRESS COVERAGE**Featured in *Yale School of Engineering & Applied Science* spotlight.**

- LinkedIn, Instagram, Facebook, 2025. <https://www.linkedin.com/posts/yaleengineering-yaleengineers-computerscience-ai-activity-7384648122062229506-ok9O>

Featured in *YaleNews* article.

- <https://news.yale.edu/2025/11/24/critical-computing-understanding-social-and-humanistic-dimensions-technology>

SERVICE**Reviewer, ACL Rolling Review (ARR)**

February 2025, May 2025 cycles

Student Organizer, The New England NLP (NENLP) Workshop

April 2025

FELLOWSHIP APPLICATIONS (SUBMITTED)**NSF Graduate Research Fellowship Program (NSF GRFP) (results pending)****DoD National Defense Science and Engineering Graduate Fellowship (NDSEG) (results pending)****DoD SMART Scholarship (results pending)**