

Elizabeth Schaefer

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EDUCATION

Yale University

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

GPA: 3.78/4.00 GRE: 168Q 169V

New Haven, CT

Aug. 2022 – May 2026

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

Yale NLP Lab, Yale University

September 2024 – Present

- 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

Capital One, Intelligent Foundations and Experiences (IFX) Team

June 2025 – August 2025

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

McWilliams School of Biomedical Informatics, UTHealth

May 2024 – September 2024

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

Teaching Assistant

CS50, Yale University

May 2024 – January 2025

May 2023 – May 2024

- 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*Morse College Council, Yale University*

March 2024 – September 2025

- 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*Department of Computer Science, Yale University*

August 2025 – Present

- 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*Yale Women in Computer Science*

August 2024 – Present

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

Student Recruitment Coordinator*Yale Admissions*

January 2023 – Present

- 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)**