

Eylon Caplan

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EDUCATION	<p>Purdue University, West Lafayette, Indiana, USA (expected) 2027 Ph.D. in Natural Language Processing, Department of Computer Science 3.8/4.0</p> <p>University of Nebraska–Lincoln, Lincoln, Nebraska, USA 2023 B.S. in Computer Science and Mathematics (Minors: Physics, Spanish) 3.99/4.0</p>
PUBLICATIONS	<p>VIBE: Can a VLM Read the Room? Tania Chakraborty, Eylon Caplan, and Dan Goldwasser Under review</p> <p>Splits! A Flexible Dataset and Evaluation Framework for Sociocultural Linguistic Investigation Eylon Caplan, Tania Chakraborty, and Dan Goldwasser Under review</p> <p>CONCEPTCARVE: Dynamic Realization of Evidence Eylon Caplan and Dan Goldwasser Poster at ACL 2025 Main Conference, Vienna, Austria on July 26–August 2</p>
RESEARCH EXPERIENCE	<p>Graduate Researcher, Purdue NLP Lab (Advisor: Dan Goldwasser) 2023–Present</p> <ul style="list-style-type: none">- Conduct research at the intersection of NLP, social reasoning, and retrieval, with a focus on modeling human behavior, beliefs, and values in real-world, unstructured corpora such as Reddit.- Develop CONCEPTCARVE, a framework that combines LLM reasoning with scalable retrieval to map how abstract social concepts manifest across online communities.- Create <i>Splits!</i>, a 3.6 M–post Reddit dataset with demographic and neutral-topic annotations to benchmark models’ ability to generate generalizable theories about group language.- Develop end-to-end multiprocessing pipelines for large-scale data segmentation and cleaning; design and evaluate retrieval and reranking systems; apply clustering, validation, and LLM-based evaluation at scale.
INDUSTRY EXPERIENCE	<p>Software Engineering Intern, Hudl 2022– 2023</p> <p>Developed and deployed an OCR model to read in-arena basketball scoreboards from indoor camera feeds and splice digital version onto live video stream.</p>
TEACHING AND CURRICULUM DESIGN	<p>Course Developer, Purdue University 2025–Present</p> <ul style="list-style-type: none">- Designed a module and four-part project about the RAG pipeline for the <i>AI Forge</i> course. Project included parts teaching model inference, prompting, in-context learning, retrieval, and retrieval augmentation. Also designed an evaluation pipeline of student code on computing cluster.- Designed assignments and course content for a new course, <i>Data Structures and Algorithms for AI</i>. Created four course projects, covering topics like trees, stacks, queues, big data hashing, fuzzy word search, and graphs. <p>Graduate Teaching Assistant, Purdue University 2024</p> <p>Led labs and assisted instruction for <i>Data Structures and Algorithms for Data Science/AI Majors</i>.</p>
KEY COURSES	<p>Graduate Level: Advanced Topics in Reasoning with LLMs, NLP, Deep Learning, Reasoning about Programs</p>
KEY COURSE PROJECTS	<p>LLM Feedback for Proofs May 2023–Dec 2023</p> <p>Tested various methods of injecting feedback from an LLM in order to generate correct symbolic proofs in the Isabelle proof solver for competition math problems. Course project for <i>Adv. Topics in Reasoning with LLMs</i>.</p> <p>Scientific Article RAG for QA Jan 2024–May 2024</p> <p>Built a RAG framework using ColBERT and a generative graph language model. Compared its ability to use scientific papers to do QA tasks. Course project for <i>NLP</i>.</p> <p>Math Expression Style Transfer Aug 2024–Dec 2024</p> <p>Developed an LLM BFS algorithm for converting math expressions into various simplified/expanded forms using only examples, with guaranteed equivalence. Course project for <i>Reasoning about Programs</i>.</p>
AWARDS	<p>Corporate Partners Scholarship 2023– 2024</p> <p>Purdue Science Excellence Scholarship 2023– 2024</p> <p>Regents Scholarship 2019– 2023</p> <p>Dean H. and Floreen G. Eastman Scholarship 2021– 2023</p>
SKILLS	<p>ML/AI, NLP, transformers, RL, multiprocessing, IR, Python, PyTorch, Big Datasets, Benchmarking</p>