Sebastian Joseph

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github.com/SebaJoe https://www.linkedin.com/in/sebajoe sebajoe.github.io

EDUCATION

Ph.D. in Computer Science 2024 - Present
College of Natural Sciences, University of Texas at Austin, Austin, TX

- Advisor: Professor **Junyi Jessy Li**

M.S. and B.S. in Computer Science | Minor in Business 2019 - 2024
College of Natural Sciences, University of Texas at Austin, Austin, TX

- *GPA*: 3.9/4.0
- Joint M.S. and B.S. through the Five-year Integrated Masters Program

SKILLS

- **Highly Proficient:** Python, C, C++, Java
- **Machine Learning:** PyTorch, TensorFlow, HuggingFace, OpenAI API, LLM Prompting, LLM Training
- **Data mining:** SQL, Pandas, Matplotlib, SciPy
- **Web Development:** HTML, CSS, Javascript, JQuery, Django, React, Vue
- **Other Languages & Skills:** Git, Clojure, Go, Rust, CUDA, Bash, MATLAB

PUBLICATIONS

Journal Articles & Conference Papers

- **(Recently Accepted: NeurIPS 2025 Benchmark and Dataset Track)**
  Joseph, Sebastian Antony, Syed Murtaza Husain, Stella SR Offner, Stephanie Juneau, Paul Torrey, Adam S. Bolton, Juan P. Farias, Niall Gaffney, Greg Durrett, and Junyi Jessy Li. "AstroVisBench: A Code Benchmark for Scientific Computing and Visualization in Astronomy." arXiv preprint arXiv:2505.20538 (2025).
- **Sebastian Joseph**, Lily Chen, Jan Trienes, Hannah Göke, Monika Coers, Wei Xu, Byron Wallace, and Junyi Jessy Li. 2024. FactPICO: Factuality Evaluation for Plain Language Summarization of Medical Evidence. In *Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)* **(ACL)**, pages 8437–8464, Bangkok, Thailand. Association for Computational Linguistics.
- Jan Trienes, **Sebastian Joseph**, Jörg Schlötterer, Christin Seifert, Kyle Lo, Wei Xu, Byron Wallace, and Junyi Jessy Li. 2024. InfoLossQA: Characterizing and Recovering Information Loss in Text Simplification. In *Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)* **(ACL)**, pages 4263–4294, Bangkok, Thailand. Association for Computational Linguistics.
- **Sebastian Joseph**, Kathryn Kazanas, Keziah Reina, Vishnesh Ramanathan, Wei Xu, Byron Wallace, and Junyi Jessy Li. 2023. Multilingual Simplification of Medical Texts. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing* **(EMNLP)**, pages 16662–16692, Singapore. Association for Computational Linguistics.
- Chantal Shaib, Millicent Li, **Sebastian Joseph**, Iain Marshall, Junyi Jessy Li, and Byron Wallace. 2023. Summarizing, Simplifying, and Synthesizing Medical Evidence using GPT-3 (with Varying Success). In *Proceedings of the 61st Annual*

Meeting of the Association for Computational Linguistics (Volume 2: Short Papers) **(ACL)**, pages 1387–1407, Toronto, Canada. Association for Computational Linguistics.

Preprints

- **Joseph, Sebastian**, Lily Chen, Barry Wei, Michael Mackert, Iain J. Marshall, Paul Pu Liang, Ramez Kouzy, Byron C. Wallace, and Junyi Jessy Li. "Decide less, communicate more: On the construct validity of end-to-end fact-checking in medicine." arXiv preprint arXiv:2506.20876 (2025).

EXPERIENCE

Research Assistant Jan 2022 - Present

The University of Texas at Austin | Austin, TX

- Lead several research projects, many of which involved the supervision of a team of annotators.
- Published research papers in premier conferences for computational linguistics and NLP (**ACL**, **EMNLP**).

Research Scientist/Engineer Intern May 2025 - August 2025

Adobe Inc. | San Jose, CA

- Manager: Ani Nenkova
- Mentors: Jack Wang, Jennifer Healey, Alexa Siu
- Developed a novel document reading experience for knowledge workers that emphasizes user-centered AI assistance.
- Developed novel evaluation metrics to automatically assess the capability of systems in being able to deliver this experience.
- Used state-of-the-art LLM agent orchestration and retrieval techniques to integrate such an experience in a web-based interface.

Shadowing Research Assistant Nov 2018 - Jun 2019

The University of Texas at Dallas | Richardson, TX

- Created large datasets for the task of classifying useful product reviews.
- Created a rule-based program to analyze sentiment in product reviews using semantic and syntactic relations.

CERTIFICATIONS & AWARDS

- **UT Professional Development Award** for Attending **EMNLP 2023** (2023)
- **2021 ConocoPhillips Innovation Challenge** 4th place
- **Cisco Certified Network Associate (CCNA)** (2019)
- **Microsoft Technology Associate in Networking** (2019)