# Sebastian Joseph

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## 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, OpenAl 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**

- 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 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).
- 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** —

Jan 2022 - Present

### **Research Assistant**

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)