Skyler Hallinan

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EDUCATION

University of Southern California   *Los Angeles, CA*
Ph.D. in Computer Science   June 2028 (expected)
Advisor: Xiang Ren

University of Washington   *Seattle, WA*
M.S. in Computer Science (GPA: 3.98)   June 2024
Advisor: Yejin Choi

University of Washington   *Seattle, WA*
B.S. in Computer Science, Departmental Honors, Cum Laude (GPA: 3.86)   June 2021
Advisor: Yejin Choi

PUBLICATIONS

* denotes equal contributions

CONFERENCE PAPERS

[C8] Jillian Fisher*, **Skyler Hallinan***, Ximing Lu, Mitchell Gordon, Zaid Harchaoui, and Yejin Choi. *"StyleRemix: Interpretable Authorship Obfuscation via Distillation and Perturbation of Style Elements"*. To appear at Procedings of EMNLP, 2024. [pdf]

[C7] Sahana Ramnath, Brihi Joshi, **Skyler Hallinan**, Ximing Lu, Liunian Harold Li, Aaron Chan, Jack Hessel, Yejin Choi, and Xiang Ren. *"Tailoring Self-Rationalizers with Multi-Reward Distillation."* In ICLR, 2024. [pdf]

[C6] **Skyler Hallinan**, Faeze Brahman, Ximing Lu, Jaehun Jung, Sean Welleck, and Yejin Choi. *"STEER: Unified Style Transfer with Expert Reinforcement."* In Findings of EMNLP, 2023. [pdf]
Oral Presentation at the Third Workshop on Novel Ideas in Learning-to-Learn through Interaction (NILLI)

[C5] Aman Madaan, Niket Tandon, Prakhar Gupta, **Skyler Hallinan**, Luyu Gao, Sarah Wiegreffe, Uri Alon, Nouha Dziri, Shrimai Prabhumoye, Yiming Yang, Shashank Gupta, Bodhisattwa Prasad Majumder, Katherine Hermann, Sean Welleck, Amir Yazdanbakhsh, Peter Clark. *"Self-Refine: Iterative Refinement with Self-Feedback."* In NeurIPS, 2023. [pdf]

[C4] Ximing Lu, Faeze Brahman, Peter West, Jaehun Jang, Khyathi Chandu, Abhilasha Ravichander, Lianhui Qin, Prithviraj Ammanabrolu, Liwei Jiang, Sahana Ramnath, Nouha Dziri, Jillian Fisher, Bill Yuchen Lin, **Skyler Hallinan**, Xiang Ren, Sean Welleck and Yejin Choi. *"Inference-Time Policy Adapters (IPA): Tailoring Extreme-Scale LMs without Fine-tuning."* In Proceedings of EMNLP, 2023. [pdf]

[C3] **Skyler Hallinan**, Alisa Liu, Yejin Choi, and Maarten Sap. *"Detoxifying Text with MaRCo: Controllable Revision with Experts and Anti-Experts."* In Proceedings of ACL (Short), 2023. [pdf]

[C2] Jiacheng Liu, **Skyler Hallinan**, Ximing Lu, Pengfei He, Sean Welleck, Hannaneh Hajishirzi, and Yejin Choi. *"Rainier: Reinforced Knowledge Introspector for Commonsense Question Answering."* In Proceedings of EMNLP, 2022. [pdf]

[C1] Saadia Gabriel, **Skyler Hallinan**, Maarten Sap, Pemi Nguyen, Franziska Roesner, Eunsol Choi, and Yejin Choi. *"Misinfo Reaction Frames: Reasoning about Readers Reactions to News Headlines."* In Proceedings of ACL, 2022. [pdf]

PREPRINTS

[C7] Ximing Lu, Melanie Sclar, **Skyler Hallinan**, Niloofar Mireshghallah, Jiacheng Liu, Seungju Han, Allyson Ettinger, Liwei Jiang, Khyathi Chandu, Nouha Dziri, and Yejin Choi. *"AI as Humanity's Salieri: Quantifying*

Linguistic Creativity of Language Models via Systematic Attribution of Machine Text against Web Text".
Submitted to ICLR, 2025.

RESEARCH EXPERIENCE

xlab, Paul G. Allen School of Computer Science & Engineering *Sep 2020 – Present*
Undergraduate and Graduate Research Assistant, <u>Advisor: Yejin Choi</u> Seattle, WA

H2Lab, Paul G. Allen School of Computer Science & Engineering *Jun 2021 – Dec 2021*
Undergraduate Research Assistant, <u>Advisor: Hannaneh Hajishirzi</u> Seattle, WA

INDUSTRY EXPERIENCE

Web Answers Team, Apple *Aug 2023 – Jan 2024*
AI/ML Research Intern Seattle, WA
- Led project on improving the citation-generating capabilities of language models, by creating a machine-generated, question-answering dataset with citations to be used as instruction tuning data

AWS CodeWhisperer, Amazon *Apr 2023 – Jul 2023*
Applied Scientist Intern, Supervisor: Xiaofei Ma Seattle, WA
- Led project on a controlled decoding framework for code generation with intermediate, approximate evaluation, improving performance with state-of-the-art models without any additional training

Bloomberg *Jun 2021 – Aug 2021*
Software Engineering Intern, BLAW Search New York, NY
- Developed and implemented two novel, zero-shot classification approaches for short text using LEGAL-BERT, achieving 67% performance on the test set (accuracy) compared to human annotators

AWARDS AND HONORS

Graduate Fellowship granted by Viterbi School of Engineering *2024-2025*
Viterbi School of Engineering, University of Southern California Los Angeles, CA
- Selected for a highly competitive, merit-based fellowship recognizing academic excellence and potential for leadership in engineering research.

Outstanding Senior Award *2021*
Paul G. Allen School of Computer Science and Engineering, University of Washington Seattle, WA
- One of three graduating seniors out of 450 chosen based on exceptional academic performance, significant contribution to the advancement of knowledge, and demonstrated leadership potential and good citizenship.

Dean's Medal Nomination *2021*
College of Arts & Sciences, University of Washington Seattle, WA
- Nominated for the 2021 College of Arts & Sciences Dean's Medal, awarded to the top graduating senior in the department

Levinson Emerging Scholar *2020*
University of Washington Seattle, WA
- Awarded to talented and highly motivated juniors and seniors pursuing creative and advanced STEM research

REVIEWING

Reviewer for ACL Rolling Review *November 2023 – Present*

Teaching

Teaching Assistant, **CSE 517: (Graduate) Natural Language Processing** *Winter 2024*
University of Washington; Instructor: Yejin Choi Seattle, WA

Head Teaching Assistant, **CSE 573: (Graduate) Introduction to Artificial Intelligence** *Winter 2023*
University of Washington; Instructor: Hannaneh Hajishirzi Seattle, WA

Teaching Assistant, **CSE 473: Introduction to Artificial Intelligence** *Spring 2021 – Autumn 2023*
University of Washington, Instructor(s): Hannaneh Hajishirzi, Luke Zettlemoyer Seattle, WA

Teaching Assistant, **CSE 421: Introduction to Algorithms** *Winter 2020*
University of Washington, Instructor: Paul Beame Seattle, WA

Service

Undergraduate Research Leader *2020-2022*
University of Washington Undergraduate Research Program Seattle, WA

- Presented at freshman seminars and other events to advocate for and spread awareness of undergraduate research

"Big" (Mentor) *2020-2022*
University of Washington ACM Big/Little Mentorship Program Seattle, WA

- Mentored undergraduate computer science students, providing internship help, career planning, and course advice

Other Publications

Conference Papers

[1] **S. Hallinan**, J. Buszkiewicz, C. Rose, and A. Drewnowski, "Ultra-processed Foods are Needed for Nutrient Adequate Diets: Linear Programming Analyses of the Seattle Obesity Study", Nutrients 2021

Workshop Papers

[2] A. T. Chen, J. H. Chang, **S. Hallinan**, and D. C. Mohr, "Mapping User Trajectories: Using Participant Flows to Examine Behavior and Outcomes in Digital Health Intervention Data", 2019 IEEE Workshop on Visual Analytics in Healthcare (VAHC)