Madeleine Grunde-McLaughlin

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Education

2021-present | **Ph.D. Student at the University of Washington,** *Seattle, WA.*
Paul G. Allen School of Computer Science & Engineering
Co-advised by Jeffrey Heer and Daniel Weld

2016-2021 | **B.A. at the University of Pennsylvania,** *Philadelphia, PA.*
Bachelor of Arts in Cognitive Science with Summa Cum Laude
Minors in Computer Science, French

2019 | **Community Auditing Program at Princeton University,** *Princeton, NJ.*
Audited Computer Vision, NLP, Advanced Graph Theory (not for credit)

2019 | **Study Abroad at Lyon Lumière II,** *Lyon, France.*
Courses in French including Neuroscience, Human Computer Interaction, and Memory

Publications

CSCW 2023 | **Explanations can Reduce Overreliance on AI Systems during Decision-Making**
Helena Vasconcelos, Matthew Jörke, ***Madeleine Grunde-McLaughlin****, Ranjay Krishna, Tobias Gerstenberg, and Michael Bernstein*
ACM Conference on Computer-Supported Cooperative Work and Social Computing, 2023

CHI 2022 | **When Do XAI Methods Work? A Cost-Benefit Approach to Human-AI Collaboration**
Helena Vasconcelos, Matthew Jörke, ***Madeleine Grunde-McLaughlin****, Ranjay Krishna, Tobias Gerstenberg, and Michael Bernstein*
ACM Conference on Human Computer Interaction, TRAIT workshop, 2022

CVPR 2022 | **AGQA-Decomp: Measuring Compositional Consistency for Video Question Answering**
Mona Gandhi, Mustafa Öümer Gul, Eva Prakash, ***Madeleine Grunde-McLaughlin****, Ranjay Krishna, Maneesh Agrawala*
IEEE conference on Computer Vision and Pattern Recognition, 2022

CVPR 2021 | **AGQA: A Benchmark for Compositional Spatio-Temporal Reasoning**
Madeleine Grunde-McLaughlin*, Ranjay Krishna, Maneesh Agrawala*
IEEE conference on Computer Vision and Pattern Recognition, 2021

InfoVis 2020 | **Bayesian-Assisted Inference from Visualized Data**
Yea-Seul Kim, Paula Kayongo, ***Madeleine Grunde-McLaughlin****, Jessica Hullman*
IEEE Transactions of Visualization & Computer Graphics (Proceedings of InfoVis), 2020

Selected Awards and Honors

2021 | **Allen School Computer Science & Engineering Research Fellowship**
1-year fellowship from the University of Washington Allen School

2021 | **College Alumni Society Prize in Cognitive Science**
Awarded to the best Cognitive Science thesis at the University of Pennsylvania

2021 | **Phi Beta Kappa Honor Society**

Preprints and workshop papers

2023 | **Designing LLM Chains by Adapting Techniques from Crowdsourcing Workflows**
***Madeleine Grunde-McLaughlin**, Michelle S Lam, Ranjay Krishna, Daniel S Weld, Jeffrey Heer*
ArXiv preprint, December 2023

2023 | **How Do Data Analysts Respond to AI Assistance? A Wizard-of-Oz Study**
*Ken Gu, **Madeleine Grunde-McLaughlin**, Andrew M McNutt, Jeffrey Heer, Tim Althoff*
Conditionally Accepted at ACM Conference on Human Computer Interaction, 2024

CSCW 2023 | **Semantic Navigator: Query Driven Active Learning for Historical Narrative Understanding**
*Eva Maxfield Brown, **Madeleine Grunde-McLaughlin**, Isabelle Pestovski, Lanyi Zhu, Nicholas Weber*
ACM Conference on Computer-Supported Cooperative Work and Social Computing, Community-Driven AI Workshop, 2023

CHI 2022 | **When Do XAI Methods Work? A Cost-Benefit Approach to Human-AI Collaboration**
*Helena Vasconcelos, Matthew Jörke, **Madeleine Grunde-McLaughlin**, Ranjay Krishna, Tobias Gerstenberg, and Michael Bernstein*
ACM Conference on Human Computer Interaction, TRAIT Workshop, 2022

2022 | **AGQA 2.0: An updated benchmark for compositional spatio-temporal reasoning**
***Madeleine Grunde-McLaughlin**, Ranjay Krishna, Maneesh Agrawala*
ArXiv, April 2022

2021 | **Model comparison of the effects of stimulus structure on visual working memory recall**
***Madeleine Grunde-McLaughlin**, Cheng Qiu, Alan A Stocker*
Undergraduate Honors Thesis, April 2021

Presentations

2023 | **Benchmarks for Vision-Language Compositional Reasoning**
***Madeleine Grunde-McLaughlin**, Cheng-Yu Hsieh*
Talk, IEEE/CVF International Conference on Computer Vision (ICCV), CAMP Workshop, 2023

2023 | **Applying social computing workflows for text-editing with LLMs**
***Madeleine Grunde-McLaughlin**, Michelle Lam, Ranjay Krishna, Jeffrey Heer, Daniel Weld*
Poster, CRA-WP Grad Cohort for Women Conference

2021 | **AGQA: A Benchmark for Compositional Spatio-Temporal Reasoning**
***Madeleine Grunde-McLaughlin**, Ranjay Krishna, Maneesh Agrawala*
Poster, Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, 2021

2020 | **Measuring Spatio-Temporal Reasoning Through VideoQA**
***Madeleine Grunde-McLaughlin**, Ranjay Krishna, Maneesh Agrawala*
Poster, Grace Hopper Celebration of Women in Computing

Work experience

2023 **Google Student Researcher** *Seattle, Washington*
- Explored reference validation with the Google Applied Science group

2018 **Aravind Eye Care Systems Project Student,** *Madurai, India*
- Implemented a Moodle Learning Management System to track training completion for doctors and nurses
- Led a focus group with 8 doctors to test the Learning Management System interface
- Liaised between 5 departments to design the goals and implementation of this project

2017 **Dynamix Gymnastics Assistant Camp Director,** *Langhorne, Pennsylvania*
- Managed a team of 11 coaches of various experience levels
- Communicated goals and mediated interpersonal conflicts among coaches, parents, and children

Service

2023-present **New Grad Mentoring Organizer,** *University of Washington*
- Coordinating and matching first-year and older studient pairs
- Organizing quarterly events for all mentors and mentees

2022-2023 **Doctoral Colloquium Coordinator for DUB (Design Use Build),** *University of Washington*
- Organized a workshop for Ph.D. students to get feedback on their dissertation plan
- Recruited 6 panelists across industry and academica
- Coordinated and ran a full-day event in which students present their research and faculty give feedback

2022-2023 **New Grad Mentor,** *University of Washington*
- Organizing events for new students to build community
- Supporting first year students as they adapt to the PhD program

2017-2021 **Penn for Refugee Empowerment,** *University of Pennsylvania*
- Served as Vice President and Director of Tutoring
- Co-founded tutoring program that now connects 50+ volunteers to tutor refugees in Philadelphia and abroad
- Re-structured the organization's focus to increase tutoring numbers by over 300% in one semester
- Participated in the UN TOGETHER Campaign to promote university student led refugee aid organizations
- Tutored high school students at the African Family and Health Organization (AFAHO) in West Philadelphia

2018-2021 **Alpha Phi Omega Service Fraternity,** *University of Pennsylvania*
- Served as Pledge Service Chair and on the Leadership Committee
- Volunteered at various service events in Philadelphia such as UCHC soup kitchens and Books Through Bars
- Led a service committee that collaborated with an event cleaning streets in North Philadelphia

Technical Skills

Advanced - Python; Proficient - Pytorch, Tensorflow, HTML/CSS, Flask, R, Java; Basic - React, D3, Idyll