Anneliese Brei

abrei@cs.unc.edu | LinkedIn | GoogleScholar | https://adbrei.com

Research Interests

Natural Language Processing, Natural Language Generation, Narrative Understanding, Text Evaluation

Education

University of North Carolina at Chapel Hill (UNC-CH)

Ph.D. Candidate in Computer Science

M.Sc. in Computer Science

May 2022 – Present

May 2024

Advisor: Prof. Snigdha Chaturvedi

William & Mary (W&M) Aug 2018 – May 2022

BS in Computer Science (with Honors)

Summa Cum Laude 4.0/4.0 GPA

Minor in Creative Writing

Undergraduate Advisor: Prof. Bin Ren, Prof. Qun Li (research)

Study Abroad at Christ's College, Cambridge University, UK

July – Aug 2019

Experience

Research Assistant, UNC-CH Aug 2022 – Present

Advisor: Prof. Snigdha Chaturvedi

Computer Science Consultant, W&M Aug 2020 – May 2022

Supervisor: Prof. Peter Kemper

Teaching Assistant, CSCI 301 Software Development, W&M Summer 2021

Supervisor: Prof. Peter Kemper

Marketing Coordinator, Raymond A. Mason School of Business Jan 2019 - Jan 2021

Supervisor: Jeffrey Rich

Intern, Center for Legal & Court Technology, W&M School of Law May – Aug 2019

Supervisor: Prof. Fredric Lederer July – Aug 2018

Publications

Conference papers

Returning to the Start: Generating Narratives with Related Endpoints

Anneliese Brei, Chao Zhao, Snigdha Chaturvedi

Proceedings of NAACL 2024. [Paper][Poster][Slides][Code]

Theses

Quantum Federated Learning: Training Hybrid Neural Networks Collaboratively

Advisor: Prof. Qun Li

Undergraduate Honors Thesis, William & Mary, May 2022 [Paper][Site][Video]

Books

Available as paperbacks on Amazon and Barnes & Noble Online Bookstore:

- The von Neumann Boutique, Prototype Educational Novel, Kindle Direct Publishing, 2020.
- The Song of Paquita, YA Novel, Kindle Direct Publishing, 2017.
- Clocks Out of Time, YA Novel, CreateSpace, 2015.
- She Watches, YA Novel, CreateSpace, 2014.

Creative Fiction/Nonfiction & Essays

- Wake Up Call, Non-fiction Winner 2021, \$2500 prize, Newton-Blanchard [announcement]
- The Memory, Long Story Short Award Fall 2020, Short Fiction, Short Édition [site]
- Essay Finalist, The Fountainhead Essay Contest 2018, \$100 prize, The Ayn Rand Institute [announcement]

Honors

Fellowships

- **Graduate Research Fellowship (GRFP),** National Science Foundation five-year fellowship awarded to graduate students, 2023-2027
- Royster Society PhD Fellowship, UNC-CH five-year fellowship awarded to one Computer Science student and only ten students across all doctoral programs in the 2022 cohort, 2022-2027
- **Departmental Honors with Honors Fellowship,** W&M undergraduate honorary designation with \$4000 grant to conduct research, 2021-2022

Awards

- HLF Young Researcher Attendee & Travel Grant, 11th Heidelberg Laureate Forum, among 200 attendees selected worldwide, 2024
- Grace Hopper Conference Scholarship, AnitaB.org, 2023
- Computing Research Association (CRA-WP) Attendee & Travel Grant, 2023
- Stephen K. Park Undergraduate Scholarship Award, W&M award of \$1000 given to top graduating undergraduate computer science student, 2022
- Dean's List, all semesters at W&M, 2018-2022
- Phi Beta Kappa Member, W&M nomination and induction into Alpha Chapter of Virginia, 2021
- Rocket Pitch Winner, Alan B. Miller Entrepreneurship Center, best presentation at weekly Rocket Pitch Competition, awarded \$100, selected for final round, 2021
- James Monroe Scholarship, W&M, Top academically distinguished undergraduates (5-7% sophomores). Awarded \$3000 summer research grant, 2020-2022
- Alpha Lambda Delta & Phi Eta Sigma, W&M first-year honor societies, awarded to freshmen with 3.5 or greater GPA, 2019

Service

Workshop Organization

- Workshop Organizer, The Seventh Workshop on Narrative Understanding, NAACL 2025
- Workshop Organizer, The Sixth Workshop on Narrative Understanding, [Site] EMNLP 2024
- Steering Committee, Global Royster Conference, King's College London, [Site] June 2024
- Steering Committee, Global Royster Conference, UNC-CH, [Site] May 2023
- Planning Board Member, W&M Cypher VII Hackathon, [Site] Mar 2022
- Planning Board Member, W&M Cypher VI Hackathon, [Site] Apr 2021

Reviewer

- The Sixth Workshop on Narrative Understanding, EMNLP 2024
- The Fifth Workshop on Narrative Understanding, ACL 2023

Invited Talks

- How Does Narratology Influence Research in NLP?, Guest Lecturer for ENGL 105: English Composition and Rhetoric, UNC-CH, Nov 2024
- An Introduction to Research That Bridges NLP and Narratology, Guest Lecturer for ROML 501 Introduction to Digital Humanities, UNC-CH, Oct 2024
- Are LLMs Helpful Assistants for Understanding Narratives?, Working Group Talk at Sociotechnical Consequences of Al: An Interdisciplinary Exploration of Ethical, Organizational, Social, and Computational Dimensions International Workshop, UNC-CH, Sep 2024
- How Can a Researcher Use AI to Better Connect with a Community?, [Site] Workshop Talk at Global Royster Conference, Kings College London, June 2024
- Detecting the Unreliable Narrator & Other Work with Narratology and Al, [Site] Research Presentation at Global Royster Conference, UNC-CH, June 2024
- 'Returning to the Start', Research as a UNC Graduate Student, Research Presentation at UNC-CH Graduate School Advocacy and Development Board Planning Meeting, Apr 2024
- Jaunting Through a Neural Network, [Site] SciArt Gallery Presentation at W&M Student Showcase, Apr 2021
- The von Neumann Boutique: A Published Novel That Introduces Computer Science & Ada Lovelace in a Smart Shop Framework, [Site] Research Presentation at W&M Undergraduate Research Month, Apr 2021

Research Posters & Visual Abstracts

- A Tale of a Story Generator: Incorporating Narratology into Natural Language Generation & Analysis, **Visual Abstract** [Site], Global Royster, May 2023
- Power & Justice in the Age of Transformers, Poster, Global Royster, May 2023
- Addressing Narrative Coherence, Poster, CRA-WP 2023 Grad Cohort Workshop, Apr 2023
- Quantum Federated Learning: Training Hybrid Neural Networks Collaboratively, Poster & Video Presentation, [Site][Video], William & Mary Undergraduate Research Month, Apr 2022
- The von Neumann Boutique: A Novel That Introduces Computer Science & Ada Lovelace in a Smart Shop Framework, Visual Abstract, [Site], William & Mary Undergraduate Research Month, Apr 2021

Outreach

• Computers and Writing with LLMs, NLP Research Demonstration, Open House for Middle & High School Students & Families, Jan 2023

Service

• Graduate Student Experience, UNC-CH

Faculty Mentor Training Workshop Group, Aug 2024-Present RA STEM Working Group, Jan 2024-May 2024

- NSF GRFP Peer Review (reviewing UNC-CH applicants' essays before their submission), 2023, 2024
- Phi Beta Kappa, Richmond Association (serving the Commonwealth of Virginia)

Vice President, Mar 2024-Present

• Computer Science Student Association, UNC-CH

Officer, Aug 2022-Present

• Agency 1693, W&M

Co-President, Chief Strategy Officer, Mar-Oct 2020 Director of On-Campus Accounts, May 2019-2020 Member, Sep 2018–May 2019

University Memberships

- UNC-CH Graduate Women in Computer Science Group, Aug 2022–Present
- W&M Association for Computing Machinery, Jan 2020–May 2022
- W&M Society of Women in Computing, Aug 2021–May 2022