

# Ray Groshan

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## Research interests

NLP for neurodivergence, AAC and AI, AI chatbots for the treatment of cognitive-communication disorders and oculomotor dysfunction post-brain injury, improved speech recognition for those with communication disorders, AI for medical self advocacy.

## Education

- 2025 **University of Colorado Boulder** – Boulder, CO  
MS in Computational Linguistics.
- 2023 **Southern New Hampshire University** – Online  
BS in Computer Science, Concentration in Software Engineering, Minor in Mathematics.
- 2019 **University of Wisconsin–Madison** – Madison, WI  
BA in Spanish.

## Research experience

- September 2023 – present **LECS Lab**  
Mentor: Dr. Alexis Palmer (University of Colorado Boulder).  
Creation of a resource hub of Zapotec language learning materials.  
Research into morphology-based data augmentation methods.

## Publications

- 2024 **Mothman at SemEval-2024 Task 9: An Iterative System for Chain-of-Thought Prompt Optimization**  
Alvin Po-Chun Chen, Ray Groshan, Sean von Bayern.  
*Proceedings of the 18th International Workshop on Semantic Evaluation (SemEval-2024).*

## Relevant experience

- September 2024 – present **Student Assistant**  
University of Colorado Boulder, Linguistics Department – Boulder, CO
- January 2024 – May 2024 **Grader for CSCI 3832: Natural Language Processing**  
University of Colorado Boulder, Computer Science Department – Boulder, CO
- August 2023 – December 2023 **Course Manager for CSCI 7000: Recent Advances in Computer Vision**  
University of Colorado Boulder, Computer Science Department – Boulder, CO

February 2022 – **DevOps Engineer I**  
June 2023 Charter Communications via Beacon Hill – Greenwood Village, CO  
June 2021 – **Junior Developer**  
January 2022 LeedSeed – Greenwood Village, CO

## Honors and scholarships

2019 First Place (Environmental Justice in Multispecies Worlds)  
*The Death and Life of the Great Lakes Writing Contest.*

## Talks and tutorials

October 2024 Bind It All Together  
*Workshop. CU Boulder Disability Symposium.*

October 2024 Experiences and Survival Techniques of Graduate Students with Disabilities  
*Panelist. CU Boulder Disability Symposium.*

February 2024 Pride Dinner & Discussion: Queer Adaptability  
*Panelist. University of Colorado Boulder, Center for Inclusion & Social Change.*

## Technical skills

### Programming languages

Proficient in: Python, Java, C++

Familiar with: JavaScript, SQL, MatLab, Go

### Software

GitLab, GitHub, AWS, GCP, Kubernetes, Docker, ArgoCD, Jira

### Languages

English (fluent), Spanish (advanced)

## Professional memberships

2024 – Present oSTEM

2023 – Present Association of Nonbinary and Trans Language Researchers

## Other interests

Aspiring outdoorsman, volunteering in wildlife rehabilitation, weightlifting, playing video games and tabletop games.