

# Sonia Cromp

sonic@cs.wisc.edu

(+1) 703 822 1069 ◊ socromp.github.io

## EDUCATION

---

### University of Wisconsin, Madison WI

August 2021 - Present

Doctor of Philosophy in Computer Science,  
Master of Science in Computer Science

### University of Pittsburgh, Pittsburgh PA

August 2017 - April 2021

Bachelor of Science in Computer Science,  
Bachelor of Arts in Linguistics, Minor in Bosnian/Croatian/Serbian

Relevant Coursework: *Deep Learning, Computer Vision, Applied AI, Computer Graphics, Data Science, Machine Learning, Probability/Statistics, Advanced Algorithms, Vector Calculus, Optimization*

## PUBLICATIONS

---

### *Under Review*

#### Climate PAL: Enhancing Accessibility of Climate Model Data through Conversational AI

*Sonia Cromp, Behrad Rabiei, Maxwell Elling, Alexander Herron, Michael Hendrickson*

Submitted to the 2024 Meeting of the American Geophysical Union (AGU24)

#### OTTER: Effortless Label Distribution Adaptation of Zero-shot Models

Changho Shin, Jitian Zhao, *Sonia Cromp, Harit Vishwakarma, Frederic Sala*

Submitted to the 38th Conference on Neural Information Processing Systems (NeurIPS 2024)

#### Pretrained Hybrids with MAD Skills

Nicholas Roberts, Samuel Guo, Zhiqi Gao, Satya Sai Srinath Namburi GNVV, *Sonia Cromp, Chengjun Wu, Chengyu Duan, Frederic Sala*

Submitted to the 38th Conference on Neural Information Processing Systems (NeurIPS 2024)

### *Accepted Publications*

#### The Credential is Not Enough: Combining Honeypots and Fake Credentials for Cyber-Defense

*Sonia Cromp, Mark Bilinski, Ryan Gabrys, Frederic Sala*

Conference on Decision and Game Theory for Security (GameSec 2023)

#### Mitigating Source Bias for Fairer Weak Supervision

Changho Shin, *Sonia Cromp, Dyah Adila, Frederic Sala*

Conference on Neural Information Processing Systems (NeurIPS 2023)

#### Geometry-Aware Adaptation for Pretrained Models

Nicholas Roberts, Xintong Li, Dyah Adila, *Sonia Cromp, Tzu-Heng Huang, Jitian Zhao, Frederic Sala*

Conference on Neural Information Processing Systems (NeurIPS 2023)

#### Causal Omnivore: Fusing Noisy Estimates of Spurious Correlations

Dyah Adila, *Sonia Cromp, Sicheng Mo, Frederic Sala*

International Conference on Machine Learning 2022 Workshop on Spurious Correlations, Invariance, and Stability (ICML SCIS 2022)

## **Essay Revision and Corresponding Grade Change as Captured by Text Similarity and Revision Purposes**

*Sonia Cromp, Diane Litman*

International Conference on Educational Data Mining (EDM 2021) Workshop for Undergraduates  
Best Paper Award

## **Relaxed SkipList for Concurrent Priority Queues**

*Sonia Cromp, Michael Spear*

International Conference on Parallel Architectures and Compilation Techniques (PACT 2020)  
Finalist, Association for Computing Machinery Student Research Competition

## **WORK EXPERIENCE**

---

### **NASA Goddard Institute for Space Studies**

*Graduate Intern*

*New York, NY / Remote*

June 2024 - Present

Developing a GPT-4-based system for scientists to access and analyze climate change data within the Coupled Model Intercomparison Project 6 (CMIP6) using conversational English.

### **University of Wisconsin Computer Sciences Instructional Staff**

*Reader, Theory of Computation and Computational Complexity*

*Madison, WI*

September 2023 - Present

Grading assignments for graduate-level and upper-level undergraduate theoretical computer science courses.

*Graduate Teaching Assistant, Algorithm Design*

August 2021 - May 2022

Coordinated on an 8-person instructional team to organize a 200-student upper-level algorithms course. Led weekly recitation sections, held office hours and prepared and graded course materials.

### **Global Wordsmiths**

*Interpreter*

*Pittsburgh, PA*

January 2020 - April 2021

Interpreted between English and French or Bosnian/Croatian/Serbian during medical appointments.

*French Translation Intern*

January 2019 - April 2019

Translated nonprofits' documents to make them more accessible to immigrants and refugees.

### **Voci**

*Software Development Intern*

*Pittsburgh, PA*

August 2019 - December 2019

Wrote software that processes numerals in Spanish phone call recordings. Voci is a technology start-up that analyzes speech data using deep learning.

## **SERVICE**

---

Women of the ACM Chapter President

2022 - Present

AutoML Cup Organizer

2023

International Conference on Learning Representations (ICLR) Reviewer

2023

Annual Incoming Graduate Student Mentoring Program Creator and Organizer

2022 - 2023

Departmental Student Research Symposium Organizer

2022 - 2023

Volunteer Elementary School Programming Teacher

2023

Departmental Graduate Application Feedback Program Organizer

2022

Graduate Student Advisory Committee Member

2022-2023

## AWARDS

---

University of Wisconsin-Madison Computer Sciences Golden Brick Service Award	2023
University of Wisconsin-Madison Computer Sciences Summer Fellowship	2022
Provided 50% funding for a summer research assistantship with advisor, Professor Frederic Sala	
University of Pittsburgh Slavic Department Award	2021
Awarded to graduating students whose work contributes to the advancement of Slavic studies	
Foreign Language and Area Studies (FLAS) Fellowship	2019
Full funding for the advanced study of Bosnian/Croatian/Serbian language in Pittsburgh and abroad	
University of Pittsburgh University Fellow	2019
Awarded to juniors, seniors and members of last year's graduating class with the highest 2% of GPAs	
Summer Language Institute Scholarship	2018
Scholarship to study intensive beginning Bosnian/Croatian/Serbian at the University of Pittsburgh	
Unviersity of Pittsburgh Dean's Honors List	2017 - 2021