# Daisuke Yamada

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#### EDUCATION

University of Wisconsin - Madison

Madison, WI

Traditional PhD in Computer Science Expected Graduation June 2028

Carleton College

Northfield, MN

Bachelor of Arts: Mathematics (Honors) and Computer Science (Honors)

June 2023

GPA: 3.95/4.00

DIS Study Abroad in Scandinavia

Semester Abroad in Machine Learning

GPA: 4.00/4.00

Copenhagen, Denmark January to May 2023

**Budapest Semesters in Mathematics** 

Semester Abroad in Mathematics and Computer Science

GPA: 4.00/4.00

Budapest, Hungary August to December 2021

#### Publication

 Composing Linear Layers from Irreducibles Travis Pence, Daisuke Yamada, Vikas Singh Accepted at NeurIPS 2025

- Is Conformal Factuality Robust to Distractors?
   Daisuke Yamada, Reid Chen, Harit Vishwakarma, Ramya Korlakai Vinayak Under Review, EMNLP 2025
- Adaptive Scoring and Thresholding with Human Feedback for Robust Out-of-Distribution Detection Daisuke Yamada, Harit Vishwakarma, Ramya Korlakai Vinayak Under Review, TMLR 2025
- Selecting Balls From Urns With Partial Replacement Rules
   Julian Burden, Chandramauli Chakraborty, Qizhou Fang, Lisa Lin, Nasser Malibari, Sammi Matoush,
   Isaiah Milbank, Zahan Parekh, Martín Prado, Rachael Ren, Qizhao Rong, Maximiliano Sánchez Garza,
   Eli Sun, Enrique Treviño, Daisuke Yamada
   PUMP Journal of Undergraduate Research, 2024

#### EXPERIENCE

## Senior Research advised by Professor Anna Rafferty

Northfield, MN Fall 2022

Carleton College

- Replicated Image-Adaptive Generative Adversarial Networks in the task of image reconstruction

- Built generative models capable of accurately estimating compressed or degraded images with high confidence
- Analyzed results and proposed new optimization methodologies to reduce run-time
- Tested models against images of different facial features to identify biases in our models

### **MIAC Analytics Summer Intern**

MIAC Analytics

- Worked as a Machine Learning Software Engineer within the Development Group

- Documented and improved a pipeline and template builder of automation software, AiCR, that utilized deep-learning LSTM networks to extract relevant data points from documents
- Developed new functionalities within the software

#### **MIAC Analytics Winter Intern**

New York City, NY

New York City, NY

Summer 2022

MIAC Analytics

Winter 2021

- Collaborated with a senior software engineer to implement a program recognizing handwritten characters and text boxes using multiple deep learning models in Python
- Delivered a presentation on the project to other work units at the end of the internship program

#### Polymath Jr. REU Research

Remote

Polymath Jr. REU

Summer 2021

- Collaborated in a team of 13 to investigate the "preferential" distribution X(0,1) in Combinatorial Probability
- Explored some open questions regarding the distribution X such as the density, expectation, and variance

## TEACHING

• Teaching Assistant at UW Madison	2025
Numerical Linear Algebra (CS 513)	
• Teaching Assistant at UW Madison	2023, 2024
Discrete Mathematics (CS 240)	
• Head Teaching Assistant at UW Madison	2024
$Data\ Programming\ I\ (CS320)$	
• Quantitative Resource Center (QRC) Tutor at Carleton College	2022
Mathematics and Statistics Courses (MATH/STATS $100 \sim 200$ )	
• Teaching Assistant and Grader at Carleton College	2022
Multivariable Calculus (MATH 201)	

#### Related Skills

- Languages: Python, C, C++, C#, Java, Scheme, HTML, JavaScript, SQL, CSS, Go
- Software: Latex, R, Octave, Matlab, MySQL, Excel, Eclipse, VS Code, Visual Studio, GitHub, Bitbucket, Jira

## SCHOLARSHIPS AND AWARDS

• Distinction on Senior Thesis in Computer Science at Carleton College	2022
• Distinction on Senior Thesis in Mathematics at Carleton College	2022
• Patricia V.Damon Scholarship 2022	2022
• Dean's List 2021-2022 at Carleton College	2021 – 2022
• Dean's List 2020-2021 at Carleton College	2020-2021