

# Alex Wilf

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## EDUCATION

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### Carnegie Mellon University, Pittsburgh

Sep 2021 - Present

*PhD Student in Language Technologies Institute, School of Computer Science*

- Courses: Machine Learning, Advanced Topics in Multimodal Machine Learning, Natural Language Processing, Question Answering, Artificial Social Intelligence
- Cumulative GPA: 4.08 / 4.0

### University of Michigan, Ann Arbor

*B.S. in Computer Science, Phi Beta Kappa*

Sep 2015 - Dec 2019

## PUBLICATIONS

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**Alex Wilf**, Alex Tianyi Xu, Paul Pu Liang, and Alexander Obolenskiy, Daniel Fried, and Louis-Philippe Morency. “Comparative Knowledge Distillation”. [arXiv Preprint](#).

**Alex Wilf\***, Syeda Akter\* et al. "Difference-Masking: Choosing What to Mask in Continued Pretraining." **Findings of EMNLP (2023)**.

**Alex Wilf\***, Martin Q. Ma\*, Paul Pu Liang, Amir Zadeh, and Louis-Philippe Morency. “Face-to-Face Contrastive Learning for Social Intelligence Question-Answering”. Oral Presentation at **FG 2023**.

**Alex Wilf** and Emily Mower Provost. “Dynamic Layer Customization for Noise Robust Speech Emotion Recognition in Heterogeneous Condition Training.” 2021. Oral Presentation at **ACII 2021**.

## EXPERIENCE

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### Graduate Research Assistant

Sep 2021 - Present  
Pittsburgh, PA

*MultiComp Lab, Carnegie Mellon University*

- Researching multimodal artificial social intelligence with Professor Louis-Philippe Morency.
- Created a novel deep learning architecture using a multimodal graph neural network (FG ‘23).
- Developed a novel masking strategy for large multimodal foundation models during continued pretraining (EMNLP ‘23).
- Invented a method for distilling the knowledge in large vision “teacher” models to small, lightweight “student” models with access to few calls to the teacher (arxiv ‘23).

### Research Assistant

Jan 2020 - May 2021  
Ann Arbor, MI

*Computational Human Artificial Intelligence Lab, University of Michigan*

- Researched deep learning methods for deployable automatic speech emotion recognition with Professor Emily Mower Provost.
- Designed a novel task and approach for noise robust speech emotion recognition, showed significant improvements over baseline.

### **Software Engineering Intern**

*Uber*

May 2018 - Aug 2018

San Francisco, CA

- Completed full stack project building search into Uber for Business dashboard and supporting database infrastructure.
- Organized and led conversations with three different teams to design an efficient data storage and retrieval solution.
- Implemented back end functionality using Go, front end functionality using React, Redux, Node/Javascript.

### **President**

*University of Michigan Men's Glee Club*

May 2018 - May 2019

Ann Arbor, MI

- Managed \$500,000 budget, 12 person executive team, 95 person glee club and alumni relations with over 2,500 alumni.
- Raised over \$100,000 for international tour, increased profits from concerts, digitized recordings, created alumni database and web store with new merchandise.
- Increased community outreach by raising over 36,000 meals for charity and performing for inmates and hospital patients.

## **Service**

Co-organizer: 2nd Workshop on Artificial Social Intelligence @ ICCV 2023

Co-organizer: 4th Workshop on Multimodal Artificial Intelligence @ NAACL 2022

Reviewer: ACHI 2021

## **TEACHING**

### **Teaching Assistant, Carnegie Mellon University**

*11-777 Multimodal Machine Learning*

Sep 2022 - Dec 2022

Pittsburgh, PA

### **Teaching Assistant, University of Michigan**

*EECS 492: Introduction to Artificial Intelligence*

Sep 2019 - Dec 2019

Ann Arbor, MI

## **HONORS AND AWARDS**

The Hugh G. Rumler Prize	2019
Phi Beta Kappa	2019
EECS Scholar	2018, 2019
Dewey, Ramsey, Llangollen Scholarships (Men's Glee Club)	2018
James B. Angell Scholar	2017, 2018
Barger Leadership Institute Capstone Award	2017
University Honors	2016-2019

## TECHNICAL SKILLS

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Programming Languages: Python, C++, Javascript, Go

Libraries and Tools: Tensorflow, PyTorch, NumPy, Git