Alex Wilf

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EDUCATION

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

Alex Wilf, Sihyun Shawn Lee, Paul Pu Liang and Louis-Philippe Morency. "Think Twice: Perspective-Taking Improves Large Languages Models' Theory-of-Mind Capabilities. arXiv Preprint.

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

Graduate Research Assistant Sep 2021 - Present
MultiComp Lab, Carnegie Mellon University Pittsburgh, PA

- 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
Computational Human Artificial Intelligence Lab, University of Michigan Ann Arbor, MI

- 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 May 2018 - Aug 2018
Uber 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 May 2018 - May 2019
University of Michigan Men's Glee Club 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: ACII 2021

TEACHING

Teaching Assistant, Carnegie Mellon University Sep 2022 - Dec 2022
11-777 Multimodal Machine Learning Pittsburgh, PA

Teaching Assistant, University of Michigan Sep 2019 - Dec 2019
EECS 492: Introduction to Artificial Intelligence 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
Grand Prize (EECS 183 Showcase) 2016

TECHNICAL SKILLS

Programming Languages: Python, C++, Javascript, Go
Libraries and Tools: Tensorflow, PyTorch, NumPy, Git