# ARTEMIS PANAGOPOULOU

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#### **EDUCATION**

## University of Pennsylvania, Philadelphia, PA

Doctor of Philosophy, Computer and Information Science Aug, 2021 - Expected May, 2027

Research Interests: Natural Language Processing, Computer Vision

Advisors: Chris Calllison-Burch, Mark Yatskar

GPA: 3.97/4.

Master of Science in Engineering, Computer and Information Science Jan, 2018 - Aug, 2020 Thesis Title: "Metaphor and Entailment: Looking at Metaphors Through the Lense of Textual Entail-

ment"

Advisor: Mitch Marcus GPA: 3.77/4.

## Dual Degree in Artificial Intelligence

Aug, 2015 - Aug, 2020

Bachelor of Applied Science (BAS), Computer and Cognitive Science.

Thesis Title: "Best-First-Model-Merge: From Theory to Implementation and Application"

Advisor: Mitch Marcus

Bachelors of Arts (BA) Honors, Cognitive Science

Thesis Title: "Optical Flow Estimation from Event Based Cameras Using Deep Spiking Neural Net-

works"

Advisor: Kostas Daniilidis

Bachelors of Arts (BA) Honors, Philosophy

Thesis Title: "On the suitability of Generative Difference Making for addressing challenges in Artificial

Intelligence and Robotics."
Advisor: Lisa Miracchi

Minor in Mathematics

GPA: 3.59/4.

## RESEARCH EXPERIENCE

#### Research Intern

May - August, 2023

Salesforce, Palo-Alto CA

• Conducting multimodal AI research under the supervision of Dr. Juan Carlos Niebles.

#### Research Assistant

May, 2019 - May, 2020

General Robotics, Automation, and Sensing (GRASP) Lab, University of Pennsylvania

• Worked on estimating optical flow from event based cameras (supervised and unsupervised) using Spiking Neural Networks. (Supervisor: Prof. Kostas Daniilidis)

#### Research Assistant

May, 2019 - Aug, 2019

Kod\*Lab, University of Pennsylvania

• Developed a simulation for physically parameterized soft bellow-shaped robots with multiple degrees of freedom. (Supervisor: Prof. Daniel Koditschek)

### Research Assistant

May, 2018 - Oct, 2018

Computer Science Department, University of Pennsylvania

• Applied K-reversible inference on the synthesis of Turkish morphology. (Supervisor: Prof. Mitch Marcus)

#### INDUSTRY EXPERIENCE

## Co-founder and Software Developer

Aug 2020 - Aug 2021

Aarogya LLC, Philadelphia, US and Bangalore, India

- Co-founded aarogya.life, an award winning health-tech social enterprise creating a platform to
  enable low-income patients to access essential medicines while preventing wastage of medicines
  lying unused in warehouses.
- Received the President's Engagement Prize which is competitively granted to academically excellent and civically engaged Penn seniors to design and undertake fully-funded engagement projects during the first year post grad.

#### AWARDS AND FUNDING

CTL Graduate Fellowship for Teaching Excellence	August, 2024
AWS Research Funding for Fair and Trustworthy AI	May, 2023
Alexa Taskbot Competition Finalist	February, 2022
President's Engagement Prize	May, 2020
Dean's List	Aug, 2017 - May, 2020
Penn Engineering Exceptional Service Award	March, 2019

## TEACHING EXPERIENCE

Instructor	Sept,	2022	- Dec,	2022
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Prison Teaching Initiative at Princeton University, Southwoods State Prison

Instructors: Artemis Panagopoulou, Joe Abatte, Uthsav Chitra

Teaching Assistant

Aug, 2022 - Dec, 2022

Course: CIS 530: Natural Language Processing

Instructor: Prof. Mark Yatskar

Elementary School Instructor Aug. 2021 - May. 2022

Python Coding Curriculum at Kohelet Yeshiva School (4-5 grade)

Instructor: Artemis Panagopoulou

Teaching Assistant

Jan, 2022 - May, 2022

Course: CIS 700: Interactive Fiction and Text Generation Instructor: Prof. Chris Callison-Burch, Dr. Lara Martin

Teaching Assistant

Aug, 2021 - Dec, 2021

Course: CIS 521: Introduction to Artificial Intelligence

Instructor: Prof. Chris Callison-Burch

Head Teaching Assistant

Aug. 2018 - May. 2019

Course: MCIT 592: Mathematical Foundations of Computer Science

Instructor: Prof. Val Tannen

Teaching Assistant

Jan, 2018 - May, 2018

Course: CIS 262: Automata, Computability, and Complexity

Instructor: Dr. Nima Roohi

## LEADERSHIP AND ACTIVITIES

Advancing Women in Engineering (AWE), Board Member	August 2023 - Present
Association of Alumnae (AofA), Ambassador	May 2023 - Present
Alexa Taskbot Competition [Finalist]	Aug 2021 - May 2022

- Co-Lead University of Pennsylvania's Team for the Alexa Taskbot Challenge. We implemented a live Alexa Skill that guides users through tasks and recipes.
- Gained experience with Amazon Web Services (AWS) and Alexa Skills Kit (ASK).

# Mind, Intelligence, Research, and Analysis (MIRA) Group May 2018 - Aug 2019

• Graduate philosophy research and training group focused on issues in philosophy of mind and language, cognitive science, and epistemology led by Professor Miracchi.

# Women in Computer Science (WiCS)

Jan 2019 - May 2019

• Acted as a mentor to freshman female computer science majors.

## Ivy League Undergraduate Research Symposium

Jan 2018 - Aug 2018

- Led an end-to-end application development project aimed to automate networking and scheduling for the symposium.
- Managed team of 3 developers with bi-weekly Agile sprints to build the Android application.
- Designed and built core backend, UI, and testing infrastructure.

## **PUBLICATIONS**

- Xue, Le, Ning Yu, Shu Zhang, <u>Artemis Panagopoulou</u>, Junnan Li, Roberto Martín-Martín, Jiajun Wu, Caiming Xiong, Ran Xu, Juan Carlos Niebles, Silvio Savarese." ULIP-2: Towards Scalable Multimodal Pre-training for 3D Understanding" Accepted to Conference in Computer Vision and Pattern Recognition (2024)
- Panagopoulou, Artemis, Le Xue, Ning Yu, Junnan Li, Dongxu Li, Shafiq Joty, Ran Xu, Silvio Savarese, Caiming Xiong, Juan Carlos Niebles. "X-InstructBLIP: A Framework for Aligning X-Modal Instruction Aware Representations to LLMs and Emergent Cross-modal Reasoning" Under Review
- Yang, Yue, Artemis Panagopoulou, Shenghao Zhou, Daniel Jin, Chris Callison-Burch, and Mark Yatskar. "Language in a Bottle: Language Model Guided Concept Bottlenecks for Interpretable Image Classification." Accepted to Conference in Computer Vision and Pattern Recognition (2023)
- Yue Yang\*, Artemis Panagopoulou\*, Marianna Apidianaki, Mark Yatskar and Chris Callison-Burch. "Visualizing the Obvious: A Concreteness-based Ensemble Model for Noun Property Prediction." Findings of EMNLP 2022.
- Panagopoulou, Artemis, Manni Arora Li Zhang Dimitri Cugini, Weiqiu You, Yue Yang Liyang Zhou, Yuxuan Wang Zhaoyi Hou, Alyssa Hwang, Lara Martin, Sherry Shi Chris Callison-Burch, and Mark Yatskar. "QuakerBot: A household dialog system powered by large language models", Alexa Prize TaskBot Challenge Proceedings (2022)
- Yue Yang, Artemis Panagopoulou, Qing Lyu, Li Zhang, Mark Yatskar, Chris Callison-Burch (2021). "Visual Goal-Step Inference using wikiHow." EMNLP 2021 (Oral).
- Yang, Yue, Joongwon Kim, <u>Artemis Panagopoulou</u>, Mark Yatskar, and Chris Callison-Burch. "Induce, edit, retrieve: Language grounded multimodal schema for instructional video retrieval." arXiv preprint arXiv:2111.09276 (2021)
- Chaney, Kenneth, Artemis Panagopoulou, Chankyu Lee, Kaushik Roy, and Kostas Daniilidis. "Self-supervised optical flow with spiking neural networks and event based cameras." In 2021 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), pp. 5892-5899. IEEE, 2021.