# ARTEMIS PANAGOPOULOU

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## **EDUCATION**

## University of Pennsylvania

PhD, Computer and Information Science

Philadelphia, PA

Aug, 2021 - present

Research Interests: Natural Language Processing, Computer Vision

Advisors: Chris Calllison-Burch, Mark Yatskar

GPA: 3.86/4

Master's of Engineering (MSE), Computer and Information Science Aug, 2018 - May, 2020 Thesis Title: "Metaphor and Entailment: Looking at Metaphors Through the Lense of Textual Entailment"

Advisor: Mitch Marcus

Bachelors of Science (BAS), Computer and Cognitive Science

GPA: 3.77/4 Aug, 2015 - May, 2019

Thesis Title: "Best-First-Model-Merge: From Theory to Implementation and Application" Advisor: M. Marcus

Bachelors of Arts (BA), Cognitive Science (Honors)

Aug. 2015 - May. 2019

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

Advisor: Kostas Daniilidis

# Bachelors of Arts (BA), Philosophy (Honors)

Aug, 2015 - May, 2019

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

### **PUBLICATIONS**

- 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.
- Artemis Panagopoulou, et al. "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, Artemis Panagopoulou, Mark Yatskar, and Chris Callison-Burch. "Induce, Edit, Retrieve: Language Grounded Multimodal Schema for Instructional Video Retrieval." arXiv preprint arXiv:2111.09276 (2021).
- Kenneth Chaney, Artemis Panagopoulou, Chankyu Lee, Kaushik Roy, and Kostas Daniilidis (2021). "Self-Supervised Optical Flow with Spiking Neural Networks and Event Based Cameras." (IROS 2021)'

#### RESEARCH EXPERIENCE

## Lead Amazon Alexa Taskbot Competition

August 2021 - May 2022

- Lead University of Pennsylvania's Team for the Alexa Taskbot Challenge. We implemented a live Alexa Skill that guides users through tasks and recipes.
- Employed state of the art models to implement a series of modules with the main ones being: harm classification, question answering, slot filling, and intent detection.
- Lead all of the software engineering efforts and integrations.

#### Research Assistant

University of Pennsylvania

# General Robotics, Automation, and Sensing (GRASP) Lab

May 2019 - May 2020

• Develop a modular codebase for experiments in spiking neural networks focusing on its integration with event based sensors using a PyTorch based library, Bindsnet.

### Kod\*Lab

May 2019 - August 2019

• Performed a literature review on the control of soft robots with multiple degrees of freedom.

• Employ dynamic neural fields for unsupervised object tracking on the MVSEC dataset.

• Developed a simulation (MATLAB) for a physically parameterized soft bellow-shaped bot with multiple degrees of freedom.

### Computer Science Department

May 2018 - October 2018

• Implemented Prof. Dana Angluin's K-reversible inference algorithm and applied it on the synthesis of Turkish morphology.

#### INDUSTRY EXPERIENCE

# Co-founder and Software Developer

Sept 2019 - Aug 2021

Aarogya LLC, Philadelphia, US and Bangalore, India

- Co-founded Aarogya Med Access, a non-profit health-tech social enterprise creating India's first medicine redistribution platform, enabling low-income patients to access essential medicines at extremely affordable prices while preventing wastage of medicines lying unused in warehousing inventories.
- Developed the web application (full stack) in Django and ReactJS

# AWARDS AND FUNDING

Amazon Alexa Taskbot Competition Semifinalist

President's Engagement Prize

Google exploreCSR (Computer Science Research)

Dean's List

CIS Faculty Appreciation Award

February, 2022

May, 2020

May, 2020

November, 2019 - April, 2020

August, 2017 - May, 2020

March, 2019

#### TEACHING EXPERIENCE

Prison Teaching Initiative

August 2022 - December 2022

Introduction to Java at Southwoods State Prison.

Elementary School Instructor August 2021 - May 2022

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

Head Teaching Assistant

August 2018 - May 2019

MCIT 592: Mathematical Foundations of Computer Science

Instructor, Dref Vol Tormer

Instructor: Prof. Val Tannen
Teaching Assistant

CIS 700: Interactive Fiction and Text Generation

January 2022 - May 2022

Instructor: Prof. Chris Callison-Burch, Dr. Lara Martin
Course: CIS 521: Introduction to Artificial Intelligence

August 2021 - December 2021

Instructor: Prof. Chris Callison-Burch

CIS 262: Automata, Computability, and Complexity

January 2018 - May 2018

Instructor: Dr. Nima Roohi

#### SKILLS

Programming Languages: Python, Java, C++, OCaml Scripting Languages: Bash, Javascript, MATLAB, ReactJS Markup Languages: HTML, XML, LaTex, Markdown

Toolkits: PyTorch, tensorflow, sklearn, tensorboard, numpy, pandas, nltk, Android, NodeJS, Amazon Alexa

Databases: MySQL, Firebase, MongoDB DevOp Tools: Git, Docker, Kubernetes, AWS