





# 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 Callison-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

GPA: 3.77/4

Bachelors of Science (BAS), Computer and Cognitive Science

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

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

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### 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

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**Amazon Alexa Taskbot Competition Semifinalist**

*February, 2022*

**President's Engagement Prize**

*May, 2020*

**Google exploreCSR (Computer Science Research)**

*November, 2019 - April, 2020*

**Dean's List**

*August, 2017 - May, 2020*

**CIS Faculty Appreciation Award**

*March, 2019*

## TEACHING EXPERIENCE

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**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: 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*

*Instructor: Prof. Chris Callison-Burch*

*August 2021 - December 2021*

*CIS 262: Automata, Computability, and Complexity*

*January 2018 - May 2018*

*Instructor: Dr. Nima Roohi*

## SKILLS

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**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