ARTEMIS PANAGOPOULOU

@ artemisp@seas.upenn.edu artemisp.github.io/ in/apanagop scholar/apanagopoulou
github/artemisp

EDUCATION

University of Pennsylvania **Philadelphia, PA**
PhD, Computer and Information Science *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 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

- 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, 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)*
- *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.*

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. 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.

AWARDS AND FUNDING

Amazon Alexa Taskbot Competition Semifinalist *February, 2022*
President's Engagement Prize *May, 2020*
Dean's List *August, 2017 - May, 2020*
CIS Faculty Appreciation Award *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: *Prof. Val Tannen*
Teaching Assistant
CIS 530: Introduction to Natural Language Processing *August 2022 - December 2022*
Instructor: *Prof. Mark Yatskar*
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: *Prof. Nima Roohi*

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. the web application (full stack) in Django and ReactJS

LEADERSHIP AND ACTIVITIES

Mind, Intelligence, Research, and Analysis (MIRA) Group *May 2018 - August 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) *January 2019 - May 2019*
Acted as a mentor to freshman female computer science majors.
Ivy League Undergraduate Research Symposium *January 2018 - August 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.

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