





ARTEMIS PANAGOPOULOU

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EDUCATION

University of Pennsylvania, Philadelphia, PA

Doctor of Philosophy, Computer and Information Science

Aug, 2021 - Present

Research Interests: Natural Language Processing, Computer Vision

Advisors: Chris Callison-Burch, Mark Yatskar

GPA: 3.97/4.

Master of Science in Engineering, Computer and Information Science

Jan, 2018 - Aug, 2020

Thesis: “*Metaphor and Entailment: Looking at Metaphors Through the Lense of Textual Entailment*”

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: “*Best-First-Model-Merge: From Theory to Implementation and Application*”

Advisor: Mitch Marcus

Bachelors of Arts (BA) Honors, Cognitive Science

Thesis: “*Optical Flow Estimation from Event Based Cameras Using Deep Spiking Neural Networks*”

Advisor: Kostas Daniilidis

Bachelors of Arts (BA) Honors, Philosophy

Thesis: “*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

Student Researcher

May, 2025 - Present

Google, Mountain View CA

- Work on Vision-Language Models for the Augmented Reality team.

Research Scientist Intern

May, 2023 - August, 2024

Salesforce, Palo-Alto CA

- Conducted multimodal AI research under the supervision of Dr. Juan Carlos Nieves.
- Led three projects: two involving models that combine vision, language, audio, and 3D, resulting to an ECCV publication and an ARR (ACL) submission; and one on Visual Programming accepted to CVPR.
- Contributed to a CVPR publication on 3D-vision-text contrastive foundation modeling.

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)

AWARDS AND FUNDING

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

PUBLICATIONS

- Panagopoulou, Artemis, Honglu Zhou, Silvio Savarese, Caiming Xiong, Chris Callison-Burch, Mark Yatskar, Juan Carlos Niebles. "Visual Unit Tests for More Robust Visual Programming", Accepted to Conference in Computer Vision and Pattern Recognition (2025)
- 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", Accepted to European Conference on Computer Vision (2024)
- Panagopoulou, Artemis*, Coby Melkin*, and Chris Callison-Burch. "Evaluating Vision-Language Models on Bistable Images." In Proceedings of The 13th edition of the Workshop on Cognitive Modeling and Computational Linguistics (CMCL 2024) **Best Paper Award**
- Xue, Le, Ning Yu, Shu Zhang, Artemis Panagopoulou, 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)
- Chakrabarty, Tuhin, Arkadiy Saakyan, Olivia Winn, Artemis Panagopoulou, Yue Yang, Marianna Apidianaki, and Smaranda Muresan. "I Spy a Metaphor: Large Language Models and Diffusion Models Co-Create Visual Metaphors." In The 61st Annual Meeting Of The Association For Computational Linguistics. 2023.
- 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.

PATENTS

- Systems and methods for multi-modal language models US/18400477
- Provisional Patent Application: Systems and Methods for Visual Programming (63/681,721)
- Provisional Patent Application: Systems and Methods for Training and Evaluating Multimodal Neural Network Based Language Models (63/656,510)

SELECTED INVITED TALKS

Vision Language Models Workshop <i>Women in Data Science Conference (WiDS), Philadelphia PA</i>	<i>Feb, 2025</i>
Bridging vision and language: Advances and Challenges <i>Princeton University, Princeton NJ</i>	<i>Dec, 2024</i>
Advancing Multimodal AI: Integrating Modalities, Tackling Complex Challenges, and Enhancing Interpretability <i>University of Pennsylvania, Philadelphia PA</i>	<i>Sep, 2024</i>

ACADEMIC SERVICE

Reviewed for **CVPR**, 2025
Reviewed for Student Research Workshop at the Nations of the Americas Chapter of the Association for Computational Linguistics (**NACL SRW**), 2025
Reviewed for **ACL ARR** (February, August 2024, February 2025)
Reviewed for Student Research Workshop at the Annual Meeting of the Association for Computational Linguistics (**ACL SRW**), 2023, 2024
Reviewed for The 61st Annual Meeting of the Association for Computational Linguistics (**ACL**), 2023
Reviewed for Multimodal Agents Workshop **ECCV**, 2024
Reviewed for **COLING**, 2025

TEACHING EXPERIENCE

Teaching Assistant Course: <i>CIS 530: Natural Language Processing</i> Instructor: <i>Prof. Mark Yatskar</i>	<i>Aug, 2024 - Dec, 2024, and Aug, 2022 - Dec, 2022</i>
Instructor <i>Prison Teaching Initiative at Princeton University, Southwoods State Prison</i> Instructors: <i>Artemis Panagopoulou, Joe Abatte, Uthsav Chitra</i>	<i>Sept, 2022 - Dec, 2022</i>
Elementary School Instructor <i>Python Coding Curriculum at Kohelet Yeshiva School (4-5 grade)</i> Instructor: <i>Artemis Panagopoulou</i>	<i>Aug, 2021 - May, 2022</i>
Teaching Assistant Course: <i>CIS 700: Interactive Fiction and Text Generation</i> Instructor: <i>Prof. Chris Callison-Burch, Dr. Lara Martin</i>	<i>Jan, 2022 - May, 2022</i>
Teaching Assistant Course: <i>CIS 521: Introduction to Artificial Intelligence</i> Instructor: <i>Prof. Chris Callison-Burch</i>	<i>Aug, 2021 - Dec, 2021</i>
Head Teaching Assistant Course: <i>MCIT 592: Mathematical Foundations of Computer Science</i> Instructor: <i>Prof. Val Tannen</i>	<i>Aug, 2018 - May, 2019</i>

Teaching AssistantCourse: *CIS 262: Automata, Computability, and Complexity*Instructor: *Dr. Nima Roohi**Jan, 2018 - May, 2018***LEADERSHIP AND ACTIVITIES**

Advancing Women in Engineering (AWE), Board Member*August 2023 - Present***Association of Alumnae (AofA), Board Member***May 2023 - Present***Alexa Taskbot Competition [Finalist]***Aug 2021 - May 2022***Mind, Intelligence, Research, and Analysis (MIRA) Group***May 2018 - Aug 2019***Women in Computer Science (WiCS)***Jan 2019 - May 2019*