

# Walker Mellon

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Phoenix, AZ

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[Google Scholar](#)

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## EDUCATION

**Ira A. Fulton Schools of Engineering, Arizona State University, Tempe, AZ** December 2024

Master of Science, Data Science, Analytics and Engineering (Computational Models and Data)

Thesis: Leveraging Comparative Phylogenetic Methods for Evolutionary Medicine

**W. P. Carey School of Business, Arizona State University, Tempe, AZ** December 2023

Bachelor of Science, Computer Information Systems

Bachelor of Science, Economics

Thesis: Cancer Across Vertebrates

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## PROFESSIONAL EXPERIENCE

**Co-Director**, ACE Scholars, Arizona Cancer Evolution Center, Tempe, AZ September 2024-Present

- Lead and oversee interdisciplinary undergraduate research and training
- Mentor and coach team leads driving projects from conception to publication

**Research Assistant and Team Lead**, Arizona Cancer Evolution Center, Tempe, AZ August 2021-Present

- Lead multiple undergraduate research teams
- Encourage development of teammates' professional, interpersonal, and research skills.

**Undergraduate Researcher**, Daymude Lab, Tempe, AZ August 2022-May 2024

- Assisted in development of CancerSim2
- Conduct data analysis and visualization of CancerSim2 outputs

**Co-Founder and Lead Developer**, [Proggly](#) January 2024 - Present

- Current development of Retrieval Augmented Generation and LLM application aimed to provide peer-reviewed medical information in a clinical setting to assist prognosis
- Collaborating with Daneshjou Lab at Stanford to conduct testing and gather feedback from clinicians

**Graduate Researcher**, Master's Opportunity for Research in Engineering January 2024-May 2024

- Developed and presented project titled "Validating CancerSim2: A Comparative Study of Adaptive Therapy in Mice Experiments"

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## COMMUNITY EXPERIENCE

**Member**, Cancer Education Organization, Arizona State University October 2023- Present

- Educate public about the disease of Cancer and Cancer Prevention
- Informing the public about new findings in Cancer Research

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## ACCOMPLISHMENTS

**Awards:** Global Impact Award, BioDesign Fusion 2024

**Talks:** Cancer Prevention and Control Program Seminar at the University of Arizona Cancer Center, BioDesign Fusion 2022 Rapid Fire Presenter, BioSci 2022 Lightning Talk Presenter

**Posters:** MathOnco, Biodesign Fusion, SOLS Undergraduate Research Symposium, BioSci, Fulton Forge

**Publications and Preprints:**

- *Cancer Prevalence Across Vertebrates* (Compton et al), Cancer Discovery
- *Germline Mutation Rate Predicts Cancer Mortality Across 37 Vertebrate Species* (Kapsetaki et al), Evolution, Medicine, and Public Health
- *Life History Traits and Cancer Prevalence in Birds* (Kapsetaki et al), Evolution, Medicine, and Public Health
- *The Digital Health Revolution: Exploring the Impact of Online Cancer Information on Self-Reported Preventive Behaviors* (Yavari et al), Preprint

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## SKILLS

**Languages and Technologies:** R, Phytools, dplyr, tidyverse, ggplot2, MASS, Java, JavaScript, jQuery, CSS, C++, HTML, Bash, Golang, Python, Pandas, NumPy, Matplotlib, TensorFlow, PyTorch, SQL, LaTeX, MATLAB, noSQL, Hadoop, REST, SAS, PostgreSQL, pgAdmin

**Software and Services:** Tableau, Advanced Excel, Visio, Adobe Illustrator, GitHub, Docker, Weaviate, VirtualBox, Trello, ollama, anaconda