Panayiotis (Panos) Ketonis

panosketonis1@gmail.com | (203) 817-8051 | Stamford, CT | www.linkedin.com/in/pketonis

OBJECTIVE

I seek to build multimodal brain foundation models that integrate neural recordings with modern machine learning architectures. I am motivated by the bidirectional goal of using AI to interpret brain dynamics and using neuroscience to inspire new computational principles for more Neuro-AI systems.

EXPERIENCE

Krishnaswamy Lab - CS, *Graduate Researcher,* New Haven, CT — Aug 2024 – Present

- Engineered proprietary Neuro-AI foundation models integrating neuroscience principles to predict brain dynamics, study neuro-modulation, and support agentic Neuro-AI research.
- Built a multimodal neuro-encoding pipeline that aligns EEG signals with language using contrastive learning and decodes neural embeddings into natural language via LLMs.
- Developed a novel theoretical framework for pruning overparameterized deep neural networks, illuminating key underlying mechanisms that enable high sparsity with robust performance

Tutor Me SOS, *Part-time Tutor,* Stamford, CT — June 2024 – May 2025

- Delivered individualized tutoring for the ACT/SAT exams and AP STEM subjects (Biology, Chemistry, Calculus AB & BC, Statistics), improving students' academic performance and test scores

Memory Lab, *Undergraduate Researcher,* Notre Dame, IN — Aug 2022 – May 2024

- Led and first authored a manuscript on theories of memory consolidation and presented it at the 2024 Midwestern Psychological Association Conference
- Utilized PsychoPy, Pavlovia, Qualtrics and other relevant software to conduct research, data analysis and present lab projects and papers on various cognitive processes (memory, learning, perception)

Orthopaedic & Neurosurgery Specialists, *Intern,* Stamford, CT — May 2023 – Aug 2023

- Worked directly with neurosurgeons in the clinic and shadowed various neurosurgical procedures

Thorne HealthTech, *Research Intern,* New York, NY — May 2022 – July 2022

- Leveraged medical and market research to identify partnership opportunities, successfully pitching a partnership with Team Liquid to introduce innovative brain health solutions to the esports community

SKILLS AND INTERESTS

Technical: Python (PyTorch/TensorFlow, Sklearn, Numpy), SQL, Bash, Azure, BigQuery, HPC, Git
Communication & Language: Leadership, Public Speaking; Greek (Fluent), Spanish (Proficient)
Interests: Cooking, Investing, Parlor Games, Comparative Theology, Brazilian Jiu-jitsu

PUBLICATIONS

From Cortex to Compression, *First Author,* Deepmath 2025 Conference — Sept 2025

- Developed novel biologically inspired pruning methods for overparameterized deep neural networks

Human Retrograde Amnesia and Memory Consolidation, *First Author* — Sept 2024

- Empirical and computational analysis of theories of memory consolidation through retrograde amnesia

EDUCATION

Yale University, Graduate School of Arts and Sciences — New Haven, CT
Master of Science: Computational Biology and Bioinformatics — Class of 2026

University of Notre Dame, College of Science — Notre Dame, IN
Bachelor of Science: Neuroscience and Behavior — Class of 2024
College Year in Athens: Study Abroad Program — Aug 2023 – Dec 2023
Honors*:* Nu Rho Psi Honors Society, Dean's List, Independent Thesis Project — GPA: 3.70

Stamford High School — Stamford, CT
High Honors with Distinction, ACT 36/36 — Class of 2021
Honors*:* AP Scholar with Distinction, Yale Varsity Debate Finalist, National Honors Society — GPA: 3.99

VOLUNTEERING

Greek Orthodox Youth Association, *Member,* Stamford, CT — Jan 2015 – Present
Eginitio Hospital, *Volunteer,* Athens, Greece — Aug 2023 – Dec 2023
New Canaan YMCA, *Assistant Swim Coach,* New Canaan, CT — June 2019 – July 2020