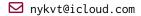
NYKKO VITALI



https://github.com/IMNMV

in LinkedIn

My Website

Education

2024 - Present Ph.D. Student, Harvard University Doctoral Program in Psychology

2018 – 2020 **B.A., University of Pennsylvania** Major in Psychology Cum Laude

2016 – 2018 A.A., Community College of Philadelphia Major in Psychology Highest Honors

Employment History

2021 – 2022 Clinical Research Coordinator, Frontotemporal Degeneration Center, University of Pennsylvania

2022 – 2024 UX Research Assistant, Exponent

Awards and Achievements

2025 Rand Fund Grant, Using NLP to Study Online Moral Discourse, \$8,000

2018 Magner Nichols Public Speaking Award, 2nd Place

2016 Phi Theta Kappa Honor Society

Research Publications

Journal Articles

- S. A. Lehr, K. S. Saichandran, E. Harmon-Jones, N. Vitali, and M. R. Banaji, "Kernels of selfhood: GPT-40 shows humanlike patterns of cognitive dissonance moderated by free choice," *Proceedings of the National Academy of Sciences*, vol. 122, no. 20, e2501823122, 2025. ODI: 10.1073/pnas.2501823122.
- E. Rhodes, D. Mechanic-Hamilton, J. S. Phillips, *et al.*, "Discrepancies in patient and caregiver ratings of personality change in Alzheimer's disease and related dementias," *bioRxiv*, 2023. ODOI: https://doi.org/10.1093/arclin/acad079.

Research Interests

Computational social science, large language models, natural language processing, cognitive immunity, metacognition

Technical Projects

ClaudeR 2025

Developed an R package that bridges RStudio with LLMs, enabling interactive coding sessions where LLMs execute code, iteratively solve errors and displays results in real time. **GitHub Repository**.

ParticleVerse 2024

Created a visionOS app that leverages advanced hand-tracking to create and manipulate particle effects. Features dual modes with unique gesture controls, an integrated guide for user interaction, and real-time content generation—all while preserving user privacy. **Project Website**.

Neuroimaging AR Pipeline for Vision Pro

2024

Developed a processing pipeline to convert 7T MRI scans into interactive 3D brain models for Apple Vision Pro using FreeSurfer, custom Python scripts, and Blender for anatomical visualization. **LinkedIn Post**.

Document Retrieval with BERT embeddings

2023

Constructed a language model tool for offline document search using sentence embeddings and cosine similarity, enabling secure information retrieval within proprietary environments. **GitHub Repository**

Technical Skills

Coding R, Quarto, Python, Swift, Bash, MCP

Databases PostgresQL, MongoDB

Web Dev HTML, CSS, JavaScript, Flask