Elif Akata

Munich, Germany | Google Scholar | eliaka | @elifakata | elifakata | https://eliaka.github.io/

Education

University of Tübingen | ***Ph.D. Machine Learning & Cognitive Science*** — since Oct 2022
International Max Planck Research School for Intelligent Systems (IMPRS-IS) — *Tübingen & Munich, Germany*

University of Tübingen | ***M.Sc. Computer Science*** — Oct 2019 – Feb 2022
Thesis on automated attention detection in classroom videos (HCI Lab) — *Tübingen, Germany*

Saarland University | ***B.Sc. Computer Science*** — Oct 2015 – Sep 2019
Thesis on EMG-based hand gesture recognition system (HCI Lab) — *Saarbrücken, Germany*

Research Experience

Helmholtz Munich | *Ph.D. Researcher* — Mar 2024 – Present
Human-Centered AI Lab, supervised by Dr. Eric Schulz and Prof. Dr. Matthias Bethge

University of Tübingen | *Ph.D. Researcher* — Oct 2022 – Feb 2024
Scalable Trustworthy AI Lab, supervised by Prof. Dr. Seong Joon Oh

Tübingen AI Center | *Resesarch Assistant* — Oct 2021 – Sep 2022
Computational Neuroscience and ML lab, supervised by Prof. Dr. Matthias Bethge

Max Planck Institute for Software Systems | *Student Research Assistant* — May 2017 – Apr 2019
Programming Analysis and Verification group, supervised by Dr. Eva Darulova

Teaching & Summer Schools

MIT Brains, Minds & Machines Summer Course | *Woods Hole, USA* — 2024
International Computer Vision Summer School (ICVSS) | *Sicily, Italy* — 2023
Trustworthy Machine Learning | *TA for a 6 Credit M.Sc. lecture at University of Tübingen* — 2023

Invited talks

University College London | *Experimental Psychology Department* — 2024
London School of Economics | *Generative AI in Social Science Research Workshop* — 2024

Skills

Languages: English (IELTS Academic Band 7.5), German (DSH-2, CEFR Level C1), Turkish (Native)

Coding: Python, C/C++, PyTorch, Numpy, Pandas, SciKit-Learn, Git, LLM fine-tuning (SFT, GRPO) on HPC

Publications

1. Akata, E., Schulz, L., Coda-Forno, J., Oh, S. J., Bethge, M., and Schulz, E. (2025). Playing repeated games with large language models. *Nature Human Behaviour. https://doi.org/10.1038/s41562-025-02172-y*
2. Buschoff, L. M. S., Akata, E., Bethge, M., and Schulz, E. (2025). Visual cognition in multimodal large language models. *Nature Machine Intelligence. https://doi.org/10.1038/s42256-024-00963-y*
3. Binz, M., Akata, E., Bethge, M., et al. (2025). A foundation model to predict and capture human cognition. *Nature. https://doi.org/10.1038/s41586-025-09215-4*
4. Buschoff, L. M. S., Voudouris, K., Akata, E., Bethge, M., Tenenbaum, J. B., and Schulz, E. Testing the limits of fine-tuning to improve reasoning in vision language models. *ICML 2025*