

Elif Akata

PhD student @ Human-Centered AI Lab, Helmholtz Munich & University of Tübingen

✉ elif.akata@uni-tuebingen.de 🏷 eliaka.github.io 🎓 google scholar

Education

University of Tübingen <i>PhD Machine Learning & Cognitive Science</i>	<i>10/2022 – present</i> Munich, Germany
◦ LLMs as social and collaborative agents, human-AI coordination ◦ Supervisors: Eric Schulz, Matthias Bethge ◦ International Max Planck Research School for Intelligent Systems (IMPRS-IS) Scholar	
University of Tübingen <i>MSc Computer Science</i>	<i>10/2019 – 2/2022</i> Tübingen, Germany
◦ Thesis on attention detection in the classroom (Human-Centered Technologies for Learning Lab, supervised by Enkelejda Kasneci)	
Saarland University <i>BSc Computer Science</i>	<i>10/2015 – 9/2019</i> Saarbrücken, Germany
◦ Thesis on EMG-based hand gesture recognition (Human-Computer Interaction Lab, supervised by Jürgen Steimle)	

Experience

Visiting Researcher <i>University of Oxford, Foerster Lab for AI Research (FLAIR)</i>	<i>Oxford, UK</i> <i>1/2026 – 7/2026</i>
◦ Human-AI Collaboration, supervised by Jakob Foerster	
Research Assistant <i>Tübingen AI Center, Computational Neuroscience and Machine Learning Lab</i>	<i>Tübingen, Germany</i> <i>10/2021 – 9/2022</i>
◦ Developed computational creativity and generative art applications by programming the Boston Dynamics Spot robot with the Spot SDK to autonomously generate drawings.	
Research Assistant <i>University of Tübingen, Human-Centered Technologies for Learning Lab</i>	<i>Tübingen, Germany</i> <i>8/2021 – 9/2021</i>
◦ Processed and analysed classroom activity data for an attention-based automated detection system.	
Research Intern <i>Max Planck Institute for Intelligent Systems, Haptic Intelligence</i>	<i>Stuttgart, Germany</i> <i>9/2020 – 11/2020</i>
◦ Contributed to the sensor-specific component of an ASL sign-recognition device translating hand movements into text, supervised by Katherine Kuchenbecker	
Student Research Assistant <i>Max Planck Institute for Software Systems, Programming Analysis and Verification</i>	<i>Saarbrücken, Germany</i> <i>5/2017 – 4/2019</i>
◦ Built benchmark programs for the Daisy numerical optimization framework and evaluated performance on resource-constrained hardware like Arduinos, supervised by Eva Darulova	

Publications

- **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>
- **Akata, E.***, Voudouris, K.*., Fortuin, V., and Schulz, E. (2026). In-context function learning in large language models. *AISTATS*.
- Buschoff, L. M. S.*., **Akata, E.***, Bethge, M., and Schulz, E. (2025a). Visual cognition in multimodal large language models. *Nature Machine Intelligence*. <https://doi.org/10.1038/s42256-024-00963-y>
- 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>

- Buschoff, L. M. S.* Voudouris, K.* **Akata, E.**, Bethge, M., Tenenbaum, J. B., and Schulz, E. (2025b). Testing the limits of fine-tuning to improve reasoning in vision language models. *ICML*.

Learning and Teaching

Brains, Minds & Machines Summer Course	<i>MIT CBMM, Participant</i>	<i>Aug 2024</i>
International Computer Vision Summer School (ICVSS)	<i>University of Catania & University of Cambridge, Participant</i>	<i>Jul 2023</i>
Trustworthy Machine Learning	<i>TA for a 6 Credit MSc lecture at University of Tübingen</i>	<i>WS 2022/2023</i>

Invited Talks

Human Information Processing Lab Talk	<i>University of Oxford, hosted by Chris Summerfield</i>	<i>Feb 2026</i>
Algorithmic Game Theory, Guest Lecturer	<i>Hertie School, hosted by Asya Magazinnik</i>	<i>Nov 2025</i>
Generative AI in Social Science Research Workshop	<i>London School of Economics, hosted by the Department of Methodology</i>	<i>Jun 2024</i>
Experimental Psychology Departmental Talk	<i>UCL, hosted by Maarten Speekenbrink</i>	<i>Jun 2024</i>

Awards

BMM 2024 Summer School Travel Grant & Scholarship	<i>MIT Center for Brains, Minds and Machines, \$3000</i>	<i>2024</i>
Cyber Valley Start-up Incubation Program	<i>Our startup concept won the Sustainability Award sponsored by Carl Zeiss Foundation, €2000</i>	<i>2023</i>

Skills and Interests

Languages: English (IELTS Academic Band 7,5), German (DSH-2, CEFR Level C1), Turkish (Native)	
Coding: Python, C/C++, PyTorch, Numpy, SciKit-Learn, Git, model fine-tuning (SFT, GRPO) on HPC	
Drawing & Illustration (my design for our paper made the cover of Nature Machine Intelligence in January 2025)	
Tennis (club player now and was decent as a junior with Edirne U12 #1 and Marmara U10 #3 rankings)	