Arghavan Aslani

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Education

Sorbonne Université & Université Paris Cité, Paris, France *Sept 2024 – Jun 2025*
cog-SUP (formerly Cogmaster)
M1 in Cognitive Science (Computational Neuroscience and AI track)

University of Tehran, Tehran Iran *Sept 2017 – Sep 2022*
BSc in Electrical Engineering (Control focus)

- GPA: 15.24/20

Research Experience

Research Assistant *Paris, France*
Neurospin *Sep 2025 –*
The Computational Brain Team, UNICOG Lab

- I am working on the distributed mechanisms of working memory, where I use eye-tracking and E-phys decoding methods under the supervision of Joao Barbosa.

Research Assistant *Paris, France*
Perceptual Systems Lab, Ecole Normale Supérieure *Oct 2024 – Jun 2025*
Human Auditory Ecology group under supervision of Prof. Christian Lorenzi

- Developed a group lasso logistic regression model to identify the auditory cues (specifically, the time-averaged signal statistics derived from the modulation filterbank stages of a biologically plausible auditory model) that are most predictive of human responses when perceiving sound textures that may indicate the presence of life in natural auditory environments. (github.com/arghavanaslani/group-lasso-life-detection)

Research Assistant *Munich, Germany*
Crowd Cognition Lab, Ludwig Maximilians Universität *Apr 2022 – Oct 2024*
Under supervision of Prof. Ophelia Deroy and Prof. Bahador Bahrami

- Led a team of five to analyze museum visitor behavior using headmounted eye trackers (Pupil Invisible from Pupil Labs) at the Museu do Amanhã (Rio de Janeiro). Provided quantitative insights to museum directors, informing improvements to visitor experience.
- Developed a Flask-based application using the Pupil Invisible API for real-time visualization of multi-source eye-tracking data. (github.com/arghavanaslani/livegaze)

Research Assistant *Tehran, Iran*
Engineering Science Lab, University of Tehran *Jul 2021 – Aug 2022*
Under supervision of Dr. Ehsan Maani Miandoab

- Developed a 2-DOF robot for automated whiteboard drawing, using image processing and robotic control to translate digital images into physical drawings. (github.com/arghavanaslani/spider-paint)
- Authored a paper accepted at the ISME Conference 2022 by consolidating contributions from team members.

Publications

Interactive beats passive: Individualised metrics of engagement with screens via mobile eye-tracking in museums 2025
A. Aslani, S. Saeedpour, D. Ferreiro, B. Bahrami, O. Deroy
Under Review

Gaze scan-path similarity in mobile eye tracking using dynamic time warping (DTW) 2024
D. Gulhan, A. Aliyeva, S. Bolouki, ***A. Aslani***, B. Bahrami, O. Deroy
https://doi.org/10.31219/osf.io/57j8y

Design, Fabrication and Control of 2 DoF Robot in Vertical Plane 2022

A. Aslani, E. Maani Miandoab, H. Najafi, H. Bahreininan, M. Hemmati, M. Fakher

The 30th Annual International Conference of the Iranian Society of Mechanical Engineers
https://civilica.com/doc/1468825/

Oral Presentations

International Workshop in Human Auditory Ecology, Paris, France, Mar 31st 2025

The 30th Annual International Conference of the Iranian Society of Mechanical Engineers, Tehran. Iran, 2022

Projects

Usability Assessment for NEEK Language Acquisition App using Wearable Eye Tracking (link to white paper) *github.com/arghavanaslani/Neek*

Usability was assessed with wearable eye tracking, questionnaires and face-to-face interviews. Quantitative and qualitative methods were used to interpret the data and key insights are provided that indicate a number of key strategic directions for NEEK's development.

Additional Training

Computational Neuroscience Boot Camp, Neuromatch Academy	Certificate
Task-Oriented Course in Data Analysis with Python	Certificate
Task-Oriented Course in SQL	Certificate
Hypothesis Testing in Python	Certificate

Extracurricular Activities

- Member of BTCS (Brain Tech and Cognitive Science Club)
  Contributed to event planning and execution to attract students to the field.
- Performer and Member of Council at Performing Arts Club

Languages

English full professional proficiency (IELTS overall:7.5, L:8.5, R:7.5, W:7, S:7.5)

Farsi(Persian) native or bilingual proficiency

French elementary proficiency

Technical Skills

Experienced in Python, C++, C, MATLAB, Git, LATEX

Working knowledge in SQL, R

References

- **Prof. Christian Lorenzi** - christian.lorenzi@ens.psl.eu
  Full Professor in Experimental Psychology at Ecole Normale Superieure, Paris, France
- **Dr. Bahador Bahrami** - bahador.bahrami@psy.lmu.de
  Director of Crowd Cognition Lab, Faculty of Psychology and Educational Sciences, Ludwig Maximilian University, Munich
- **Prof. Ophelia Deroy** - Ophelia.Deroy@lrz.uni-muenchen.de
  Chair for Philosophy of Mind and Neuroscience, Ludwig Maximilian University, Munich