# Sepehr Saeedpour

### Education

• École Normale Supérieure (ENS) - PSL University

Normalien and M.Sc. in Cognitive Science

Paris, France 2024 - now

o Cognitive modeling, neurotheory and AI Track

• University of Tehran - School of Electrical and Computer Engineering

Tehran, Iran 2017 - 2023

B.Sc. in Electrical Engineering

• Thesis: Interindividual differences in Learning to Act or Avoid.

 $\circ\,$  Awarded Best Undergraduate Thesis in the ECE School.

# Research Experience

• École Normale Supérieure (ENS) — Human Reinforcement Learning Lab Research Intern Paris, France Feb 2024 - Present

Supervisor: Dr. Stefano Palminteri

- Investigate the computational mechanisms of experiential knowledge transmission (e.g., teaching).
- o Design and implement an online behavioural experiment (demo); recruited and tested 50 participants.
- Ludwig Maximilians Universität München Crowd Cognition Group Research Assistant

Remote

June 2021 - August 2024

Co-supervisors: Dr. Bahador Bahrami, Prof. Dr. Ophelia Deroy

- o Conducted a comprehensive pre-registered research on Pavlovian influence on instrumental learning.
  - Developed an online, Go/NoGo experiment in jsPsych (demo).
  - Performed statistical analyses and reinforcement-learning modeling to characterize participants' behavior.
  - Authored the manuscript, submitted it to a peer-reviewed journal, and addressed reviewers' comments.
- Contributed to a project on goal-directed and habitual decision-making in **social** settings.
  - Analyzed behavioral data and implemented reinforcement-learning models to estimate model-based and model-free control parameters.
- Worked on a project focused on eye-gaze tracking in interactive environments.
  - Built real-time eye-tracking software based on the Pupil Invisible API.
  - Analyzed gaze time serie data and visualized results with heatmaps, scanpaths, and saliency maps.
- Co-supervised a study examining Pavlovian bias in **social** settings.
  - Formulated, and pre-registered the hypothesis.

## **Publications**

- Saeedpour, S., Miandari, M., Deroy, O., Bahrami, B. (2023). Interindividual differences in Pavlovian influence on learning are consistent, Royal Society Open Science, doi.org/10.1098/rsos.230447
- Navidi, P., **Saeedpour, S.**, Miandari, M., Ershadmanesh, S., Bahrami, B. (2023). Prosocial learning: Model-based or model-free?, PLoS One, doi.org/10.1371/journal.pone.0287563

#### Honors and Awards

• The Best Undergraduate Thesis Award. ECE school, University of Tehran. (Link)

2022

• International Collegiate Programming Contest (ICPC) world finalist. Bangladesh. (Link) Nov 2022 Coached the team "aFunnyRandomPhrase" from the University of Tehran

• Silver Medalist in the 12<sup>th</sup> National Olympiad of Astronomy and Astrophysics (NOAA)

2016

# Work Experience

• Venture Capital Team - Khalgh Servat Sarzamin Parseh

Tehran, Iran

Investment Analyst

Aug. 2022 - Sep. 2024

- Analyzing early-stage startups using known frameworks such as pain points, and JTBD (job to be done).
- o Identifying candidates for investment within the allotted fund.
- YUZ Games Studio Cafe Bazaar

Tehran, Iran

Game Data Analyst

Apr. 2021 - Aug. 2022

• Employed statistical and machine learning approaches to analyze YUZ games' users' behavior in the game and optimizing various aspects of the game and levels to improve gamers' experience.

• People Analytics Team - Cafe Bazaar

Tehran, Iran

Human Resources Data Analyst

Jun. 2019 - Apr. 2021

• Utilized data-driven approaches to analyze employees' profiles to optimise work conditions.

# Teaching Experience

• Teaching Assistant - University of Tehran

o Machine Learning: Instructors: Prof. Nadjar Araabi & Dr. Abolghasemi Dahaqani

Fall 2020

• Engineering Probability and Statistics: Instructor: Dr. Behnam Bahrak

Spring 2020

o Engineering Probability and Statistics: Instructor: Dr. Abolghasemi Dahaqani

Fall 2019

• Instructor, Astronomy & Astrophysics Olympiad

2017 - 2019

Allame Helli 1 High school

• Taught Data Analysis methods (e.g. linear models, clustering) to students preparing for the National Olympiad in Astronomy & Astrophysics (NOAA).

# Organizational Experience

• Executive Director at CNCS 2019

Winter 2019

University of Tehran (Cognitive Neuroscience Competition for Students)

- Managed a team to execute the event.
- Gathered speakers on different topics in cognitive science.

#### • Performing Arts Club Vice Chair

2019

University of Tehran

• Managed the activities of Theater groups, shows and performances, workshops and events around Performing Arts in the University of Tehran.

### Technical Skills

- Programming: Python, R, MATLAB, JavaScript, Sql, C++, Bash
- Computational: RL & ML algorithms, Model fitting/selection, Statistical Ineference
- Software: jsPsych, PsychoToolBox, Pandas, Statsmodels, NumPy, Scikit-Learn, Pytorch, TensorFlow, Keras
- Miscellaneous: Git, Jupyter Notebook, Linux, Windows, LATEX, Microsoft Office (Word, Excel, Powerpoint)

### References

• Dr. Bahador Bahrami - bahador.bahrami@psy.lmu.de

Senior Research Scientist, Faculty of Psychology and Educational Sciences, Ludwig Maximilian University, Munich

• Dr. Mohammad-Reza Abolghasemi-Dehaqani - dehaqani@ut.ac.ir

Assistant Professor, School of Electrical and Computer Engineering, University of Tehran, Iran

• Prof. Dr. Ophelia Deroy - ophelia.deroy@lrz.uni-muenchen.de Chair for Philosophy of Mind and Neuroscience, Ludwig Maximilian University, Munich