Sepehr Saeedpour

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Education

- **École Normale Supérieure (ENS) - PSL University** — Paris, France
  Normalien and M.Sc. in Cognitive Science — *2024 - now*
  - Cognitive modeling, neurotheory and AI Track
- **University of Tehran - School of Electrical and Computer Engineering** — Tehran, Iran
  B.Sc. in Electrical Engineering — *2017 - 2023*
  - Thesis: Interindividual differences in Learning to Act or Avoid.
  - Awarded Best Undergraduate Thesis in the ECE School.

Research Experience

- **Sorbonne université — Institut des Systèmes Intelligents et de Robotique** — Paris, France
  Research Intern — *Aug 2025 – Present*
  Supervisor: Dr. Heike Stein
  - Investigate the head direction dynamics in mice.
- **École Normale Supérieure (ENS) — Human Reinforcement Learning Lab** — Paris, France
  Research Intern — *Feb 2024 – June 2025*
  Supervisor: Dr. Stefano Palminteri
  - Investigate the computational mechanisms of experiential knowledge transmission (e.g., teaching).
  - Design and implement an online behavioural experiment (demo); recruited and tested 50 participants.
- **Ludwig Maximilians Universität München - Crowd Cognition Group** — Remote
  Research Assistant — *June 2021 - August 2024*
  Co-supervisors: Dr. Bahador Bahrami, Prof. Dr. Ophelia Deroy
  - 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 Univesity of Tehran
- **Silver Medalist** in the 12^{th} 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).
  - 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**
  - **Machine Learning**: Instructors: Prof. Nadjar Araabi & Dr. Abolghasemi Dahaqani Fall 2020
  - **Engineering Probability and Statistics**: Instructor: Dr. Behnam Bahrak Spring 2020
  - **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 Competiton 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