



Arghavan Aslani

Prospective M.Sc. student

github.com/arghavanaslani
[in](https://www.linkedin.com/in/arghavan-aslani) arghavan-aslani
aslaniarghavan@gmail.com
[+98.938.868.7792](tel:+989388687792)

EDUCATION

B.Sc. in Electrical Engineering, University of Tehran, Tehran, Iran

2017 - 2022

Control Systems Focus

- Thesis: "LiveGaze: Real-Time Visualization of Multi-Source Eye-Tracking Data in an Integrated Application" [Code Repository](#)
- GPA: 15.24/20

RESEARCH EXPERIENCE

Crowd Cognition Group, Ludwig Maximilians Universität München —

Apr. 2022 - present

Research Assistant

crowdcognition.net

- Exploratory Data Analysis - Collaboration with Museu do Amanhã, Rio de Janeiro, Brazil
 - Conducted a comprehensive analysis of eye-tracking data and questionnaires to address inquiries from museum stakeholders.
 - Generated detailed reports, which included heatmaps, interactive diagrams, histograms of specific events from eye-tracking data, and identified meaningful patterns.
 - Managed a team of 5 individuals, overseeing data collection and preprocessing.
- Investigating Variances in Visual Perception with Mobile Eye-Tracking
 - Conducted data collection using the Pupil Invisible eye-tracking device in two conditions: individual and pair.
 - Analyzed collected data with statistical tests, generated heatmaps, and applied various similarity metrics, including SSIM for spatial similarity.
- LiveGaze - Real-Time Visualization of Multi-Source Eye-Tracking Data
 - Developed the MVP of the software using Pupil Invisible API, in Flask framework. The objective is to create real-time visualization including heatmaps and saliency maps from multiple observers.

ESLAB, University of Tehran — Lead Research Assistant

July 2021 - August 2022

www.linkedin.com/company/eng-sci-lab

- Developed a 2-DOF robot named "Spider-Paint" capable of translating images into drawings on a whiteboard using a marker. ([Link to Videos](#))
- Designed and implemented a control algorithm in C to operate two stepper motors on a vertical plane using a single Arduino. ([Link to Code](#))
- Authored a paper accepted at the ISME Conference 2022 by consolidating contributions from various team members.

PUBLICATIONS

- **Measuring Gaze Scan-Path Similarity Between Observers Using Mobile Eye-Tracking**
Contributors: **A. Aslani**, D. Gulhan, A. Aliyeva, S. Saeedpour, O. Deroy, B. Bahrami
Status: Under Preparation
- **Design, Fabrication and Control of 2 DoF Robot in Vertical Plane**
Authors: **A. Aslani**, E. Maani Miandoab, H. Najafi, H. Bahreinian, M. Hemmati, M. Fakher
Conference: The 30th Annual International Conference of the Iranian Society of Mechanical Engineers, 2022
Publisher: <https://civilica.com/doc/1468825/>

WORK EXPERIENCE

CLIC, University of Tehran — Market Analyst

July 2019 - Sep 2019

- Analyzed the product's value propositions, estimated market size, and identified early adopters to pinpoint optimal markets for eye-tracking devices.
- Scheduled and facilitated meetings with potential customers from major companies to understand their needs

PROJECTS

Exploratory Analysis of Digikala User Search Data - In progress

Currently engaged in an in-depth exploratory analysis on user search data from Digikala, Iran's largest online retailer, based on the previous year's dataset. Due to confidentiality, the analysis was performed in a secure environment, and the specific details and notebook cannot be shared.

User Experience Analysis for Language Learning App (Alpha) - In Progress

Currently leading the user experience data collection and analysis initiative for the alpha version of a language learning application. Employing surveys, interviews, and user behavior analytics to gather insights aimed at enhancing usability and addressing user needs effectively.

Web Scraping for Job Advertisements in <https://jobvision.ir>

[Link to Code](#)

Developed in Python. Utilized BeautifulSoup, pandas, and requests for web scraping and data processing. Created a custom database due to the unavailability of existing datasets in the field.

CERTIFICATIONS

Computational Neuroscience, Neuromatch Academy

[Link to Certificate](#)

Task-Oriented Course in Data Analysis with Python

[Link to Certificate](#)

Task-Oriented Course in SQL

[Link to 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

[Link to Instagram Page](#)

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
Turkish	Limited working proficiency
Arabic	Elementary proficiency

TECHNICAL SKILLS

Data Analysis	Python (Numpy, Pandas, Matplotlib, Seaborn, scikit-learn), SQL (Postgres, MySQL), MATLAB, R
Web Development	Python (Flask, Django), HTML5, CSS, JavaScript
Operating Systems	Linux(Ubuntu), Windows
Tools	Git, Jupyter Notebook, LATEX, Microsoft Office

REFERENCES

- **Dr. Bahador Bahrami** - bahador.bahrami@psy.lmu.de
Senior Research Scientist, Faculty of Psychology and Educational Sciences, Ludwig Maximilian University, Munich
- **Dr. Ehsan Maani Miandoab** - e.maani@ut.ac.ir
Assistant Professor, Faculty of Engineering Sciences, College of Engineering, University of Tehran, Iran
- **Prof. Ophelia Deroy** - Ophelia.Deroy@lrz.uni-muenchen.de
Chair for Philosophy of Mind and Neuroscience, Ludwig Maximilian University, Munich