Sarinasadat Hosseini

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EDUCATION

Ph.D in Computer Science, Tokyo Institute of Technology M.S. in Computer Science, Tokyo Institute of Technology B.S. in Electrical Engineering, Shahid Beheshti University

2019/9-2022/9 2018/4-2019/9

2012/9-2016/2

RESEARCH

Research Assistant, EISESIV, Tokyo Institute of Technology Supervised by Yoshihiro Miyake and Takayuki Nozawa

2019/9-2022/9

- Designed and developed an avatar-based job interview support system to reduce social anxiety and enhance candidate performance.
 - Created virtual interviewers using Unreal Engine, MetaHuman Creator, Live Link Face, and automated them using Unity, HTML, CSS and JavaScript.
 - Conducted behavioral analysis using Python libraries including OpenFace, Parselmouth, NeuroKit2, and NLTK.
- Developed a Google Meet extension that provided real-time feedback based on participants' verbal activity to improve communication in remote meetings.
 - Built the system using Python (OpenCV, Pandas, NumPy) and implemented active speaker detection with Scikit-learn and TensorFlow.
 - Conducted data analysis using Python (NumPy, Matplotlib) and R.
- Investigated dynamic smile variations in conversations to understand the role of different smile types in interpersonal communication.
 - Extracted facial features using Python and MediaPipe; classified smiles using SVM.

Research Student, Tokyo Institute of Technology

2017/4-2019/9

Supervised by Yoshihiro Miyake and Takayuki Nozawa

- Explored the effects of music as a meditative tool on emotion, communication, and collective creativity using fNIRS-based brain hyperscanning and body movement analysis.
 - Analyzed brain signals and performed hyperscanning in MATLAB; conducted data analysis using Python, SPSS, and R.

Research Intern, Tehran Province Water and Wastewater

2015/6-2015/9

• Developed an alarm system to monitor and regulate water purity levels.

Job Experiences

Data Scientist, Panasonic corporation

2022/10-present

- Developed a reporting system using Palantir, Power BI and Python to generate insightful IoT analytics.
- Designed and developed a manufacturing process management system using Microsoft 365 products and Python.
- Planned and supported the deployment of an LMS365-based e-learning system; tracked learners' progress and exam results using BI dashboards, SQL and Python for analysis.
- Contributed to IT requirements planning during a merger and acquisition project.
- Trained and mentored interns in data extraction, analysis, and report generation.

English Instructor, ESC

2018/8-2021/8

• Taught English to Japanese junior high school students.

SELECTED PUBLICATIONS

- [1] Avatar-Based Feedback in Job Interview Training Impacts Action Identities and Anxiety. S. Hosseini, J. Quan, X. Deng, Y. Miyake, T. Nozawa. In: *IEEE Transactions on Affective Computing*, 2024
- [2] Unravelling the relation between altruistic cooperativeness trait, smiles, and cooperation: a mediation analysis. **X. Deng**, S. Hosseini, Y. Miyake, T. Nozawa. In: *Frontiers in Psychology*, 2023
- [3] Encouragement of Turn-Taking by Real-Time Feedback Impacts Creative Idea Generation in Dyads. S. Hosseini, X. Deng, Y. Miyake, T. Nozawa. In: *IEEE Access*, 2021
- [4] Head Movement Synchrony and Idea Generation Interference Investigating Background Music Effects on Group Creativity. S. Hosseini, X. Deng, Y. Miyake, T. Nozawa. In: Frontiers in Psychology, 2019
- [5] Combined Effects of Background Music and Nonverbal Synchrony Measures on Group Creativity—A Multiple Regression Approach—. S. Hosseini, Y. Miyake, T. Nozawa. In: 2019 IEEE International Conference on Systems, Man and Cybernetics (SMC), 2019
- [6] Music Valence and Genre Influence Group Creativity. S. Hosseini, Y. Hattori, Y. Miyake, T. Nozawa. In: HCII 2019, Best paper award, 2019

SKILLS AND LANGUAGES

Data analysis: Python (NumPy, Pandas, TensorFlow, Keras, OpenFace, PySpark), MATLAB, R, SPSS, MySQL, Power Bi, Tableau

Cloud computing services: AWS, Salesforce Object-oriented Languages: C#, Java Web development: HTML, CSS, JavaScript

Software: Unreal Engine, Unity, Blender, ELAN

Languages: English (Advanced), Japanese (Advanced), French (Basic), Korean (Basic), Persian (Na-

tive)

AWARDS

HVAC Golden Award

2025/5

Panasonic

Japanese Government (MEXT) Scholarship

2017/4-2022/9

1800000 Yen/year

Selected to present the Computer Science department's students during the graduation ceremony 2019/9

Tokyo Institute of Technology

Rank 1^{st} out of 130 students in the Department of Control System and Engineering 2015 Shahid Beheshti University