

Mahdi Shafiei

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Education

- 2012–Present **B.Sc. Software Engineering**, Sharif University of Technology, Tehran, Iran.
GPA: 16.7/20.0
B.Sc. thesis: Spike sorting algorithm implementation using SIMD instructions.
- 2008–2012 **High School Diploma in Mathematics**, Allameh Amini High School, Affiliated with the National Organization for the Development of Exceptional Talents (NODET).
GPA: 18.3/20.0.

Research and Teaching Experiences

- 2016–Present **Software Developer**, NikTek Technology, Science and Technology Park, Tehran, Iran.
○ Developing extracellular recording and on-line spike sorting software, C#.
- 2016–Present **Researcher**, Research Center for Brain and Cognitive Sciences, School of Medicine, University of Shaheed Beheshti Medical Sciences Evin, Tehran, Iran, *Under the supervision of Prof. H. Esteky.*
- 2015–Present **Researcher**, School of Cognitive Science, IPM, Tehran, Iran, *Under the supervision of Prof. H. Esteky and Prof. M. Abolghasemi.*
○ **Electrophysiological and extracellular recording equipments set up:**
 - Eye tracker (Eyelink1000)
 - Psychophysical tasks design (MonkeyLogic)
 - Reward system design and low noise shielding
 - Advantec & NI Daqs and RESANA–16 Channels Neural Data Acquisition System.
- 2014(Summer) **Research Assistant**, Micro-Processing Technology Development Office, Sharif University of Technology, Tehran, Iran, *Under the supervision of Prof. Vosoughi Vahdat.*
○ Analysing functionality of micro-circuits of an embedded system.
- 2016-Fall **Teacher Assistant**, Signals and Systems, Matlab programming assistant, Professor: Dr. A. Motahari.
- 2014-Nov. **Lecturer of openCV and image processing workshop**, Computer Engineering Department of Sharif University of Technology, Tehran (Sponsor SSC).
- 2013-Fall **Teacher Assistant**, Fundamentals Of Programming, Graphical Programming Assistant, Instructor: Dr. Reza Taherkhani.

Projects

- M. Shafiei, F. Shakerian, H. Esteky**, "Temporal Attention Elevates Baseline of Neural Activity on IT cortex of Macaque Monkey".
- S. Navab, M. Shafiei, M. Abolghesemi, H. Vahabi**, "Conscious and Unconscious Priming Effect of Presenting Man and Woman Words in Gender Discrimination".

Research Interests

- Neuroscience Decision Making, Memory, Sensory and Perceptual Distortion, Time Perception and Temporal Processing.
- Computer Science Neural Networks, Computer Vision, Graphics & Game Design.

Professional Skills

Programming	Object Oriented Programming: <i>Java, C#</i> . Graphical Programming and GUI Design: <i>Java, C#, and C</i> . Multi-Thread and SIMD(SSE4 & AVX) Programming: <i>C# and C</i> . Numerical Computation and Signal/Image Processing: <i>C, C++(OpenCV), and Matlab</i> . Game Engines and Tools: <i>Unity and Kinect</i> . Socket Programming: <i>Java</i> .
Neuroscience Tools	Monkeylogic, Psychtoolbox, Psignifit, EEGLab.
Computer Tools	Quartus, Microsoft Excel and Word, SolidWorks(3D Design), Photoshop.
Hardware	Computer Assembly, Logic Circuits Design, Micro-Controllers, and familiar with FPGA.
Computer Skills	Native linux user, Git, Touch Typing, Bash scripting, Latex.

Selected Softwares (Others are available in GitHub and web-page)

Driving Simulation for fMRI Task, Unity(C#).
NeuroNik–Electrophysiology Recording Software, Visual Studio(C#).
Enterprise Resource Planning System, Java(JavaFX).
MEMO–Cognitive Enhancement Game, Visual Studio(C#) using kinect XBox one.

Academic Activities

2016- May	Participating in 3-days Stereology Course , Shahid Beheshti University. Jens Randel Nyengaard–President of International Society for Stereology, Aarhus University, Denmark.
2015-Nov	Participating in 3-days Workshop on fMRI data analysis , IPM. Reza Rajimehr - McGovern Institute for Brain Research, MIT. Maryam Vaziri - Department of Psychology, Harvard University.
2015-Nov	Participating in Workshop on principles and applications of MRI in neuroimaging , Prof. Abbas Nasiraei Moghaddam, IPM.
2015-Present	Participating in Kandel Study Group , Study and discussing chapters of Kandel with medical students, Tehran University of Medical Science.
2014-Present	Leader and Member of English Free Discussion , Entrepreneurship Center, Sharif University of Technology.

Selected Courses

Software Engineering

Programming	C/C++ programming (20/20), Java Programming(OOP) (20/20)
Algorithms	Data Structures (18.6/20.0), Design Algorithms (19/20)
Mathematics	Engineering Probability and Statistics (20/20), Engineering Mathematics (19/20)
Laboratory	Logic Circuits lab (20/20), Computer Architecture lab (19/20), OS lab (20/20), Digital Systems Design lab(FPGA) (19.4/20)
Other	Technical Presentation(20/20), Computer Simulation(17.8/20.0)

Neuroscience & Psychology(On-line)

Visual Perception, *Duke University*, Prof. Dale Purves.
Introduction to Neuroeconomics, *Higher School of Economics*, Dr. Vasily Klucharev.
The Brain and Space, *Duke University*, Prof. Jennifer M. Groh.
Introduction to Psychology, *University of Toronto*, Prof. Steve Joordens.

Languages

English Fluent, TOEFL: 98(R:26, L:26, S:22, W:24) - GRE: 314(Q:164, V:150, W:2.5).
Turkish Mother Tongue.
Persian Native Language.