

## Curriculum vitae

### Ainaz Jamshidi

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#### Research interests

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- Data science, Machine learning, Deep learning
- Signal processing, biological signal processing, Digital Signal processing
- Neuroscience & Computational Neuroscience
- Control & modeling of biological systems

#### Education

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<b>2018- present</b>	Master's in computer science, KOC University, Turkey, Istanbul- current GPA: 3.81/4
<b>2013 – 2017</b>	B.SC. in biomedical engineering, bioelectric, biomedical engineering faculty, AmirKabir University of Technology, Iran, Tehran– GPA: 17.71/20- (140 credits)- 3.75/4.
<b>2015 - 2018</b>	B.SC. in Electrical engineering, Electronics, Electrical engineering faculty, AmirKabir University of Technology, Iran, Tehran– GPA: 17.7/20- (110 credits)
<b>2009 - 2013</b>	High-school Diploma in Mathematics and physics Fateh High School, National Organization for the Development of Exceptional Talent (NODET), Mashhad, Iran- GPA: 19.79/20 - 4/4

#### Honors

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<b>2013</b>	Top 0.1% of participants in the nationwide university entrance exam (Konkoo-e-Sarasari).
<b>2013 - Present</b>	Ranked 5 <sup>th</sup> among 35 bioelectric students.
<b>2015</b>	Exceptional Talent, Amirkabir University of Technology, and accepted in double Majors program of Biomedical Engineering and Electrical engineering.

- 2016** Being in the top 10 percent of bioelectric students in the Amirkabir University of Technology who could continue to study at Master 's level without taking the national university entrance exam.
- 2016** The only bioelectric student who has received the prize of academic morality matters

### **Selected academic projects**

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- 2017** B.Sc. Final Project: "Representing a mathematical model that demonstrates differences of the effect of positive and negative feedback on short-term memory", (in progress, the steps that have been taken so far are: designing a two-back task test in c#, processing of 25 EEG signal data with Matlab and extracting Erps related to the effect of both feedbacks.), Supervisor: Dr. Golnaz Baghdadi.
- 2016** Microprocessor Course Project: Programming an AVR microcontroller for two users can play X-O Game, Dr. Farshad Almasganj (Ph.D.).
- 2015** Electronic II Course Project: Designing an op amp with more than 120dB DC gain and linear output between 17°C to 80°C, Dr. Mohammad Mahdi Ahmadi (Ph.D.).
- 2015** Electronic I Course Project: Designing a multistage amplifier with high gain and linear output between 17°C to 80°C, Dr. Mohammad Mahdi Ahmadi (Ph.D.).
- 2014** Introduction to biomedical Engineering project: Deliberation diffusion characteristics in "corpus callosum" with the aid of DTI image processing, Dr. Nasiraei (Ph.D.).
- 2014** Electronics II Lab project: Design and implementation of an ECG amplifier, M.valiollah (MSC).

### **Work Experiences**

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- 2016** Internship: Atieh clinical neuroscience center, Tehran, Iran, Research on Cognitive neuroscience, preprocessing & processing EEG signals, software: Matlab & EEGLab toolbox, WinEEG, Supervisor: Dr. Golnaz Baghdadi.

<b>May 2017-present</b>	Atieh clinical neuroscience center, Tehran, Iran, Position: researcher, processing EEG signal data, software: Matlab & EEGLab toolbox, WinEEG.
<b>2017</b>	Designing a new two back task with positive and negative feedback (is a kind of cognitive neuroscience test to evaluate the working memory performance and to investigate the effect of feedback on it) in c#. (30 subjects participate in this study voluntary)
<b>2018- 2019</b>	Preparing a technical literature survey in predictive maintenance domain (predicting remaining useful life and breakdowns in advance via data driven and machine learning and deep learning approaches)
<b>2018</b>	Teacher assistant of artificial intelligence
<b>2019</b>	Preprocessing four big time series data sets (the data is recorded via Wearable devices from tennis players) and the result of applying some machine learning and deep learning algorithms are investigated. <b>This study is in the process of publishing.</b>

### Papers under review

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- Golnaz Baghdadi\*, Ali Doustmohammadi, Farzad Towhidkhah, **Ainaz Jamshidi**. “Prediction of the Root Causes of Attention Deficit Disorder Symptoms Using Petri Net Modeling Approach”
- Hayati Havlucu, **Ainaz Jamshidi**, Cem Eteke, Terry Eskenazi, Oğuzhan Özcan, Barış Akgün. “Flow from motion: A Deep Learning Approach”. (Technical report is available)

### Conference Papers

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- **Ainaz Jamshidi\***, Golnaz Baghdadi. “The effect of positive and negative feedback on working memory performance: Mathematical Modelling”
- **Ainaz Jamshidi\***, Golnaz Baghdadi. “The effect of negative and positive feedbacks on N200 & P300 ERP components recorded under Visual two-back Continuous Performance Test on normal participants”

## Online courses

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- Artificial intelligence (Columbia university)
- Machine learning (Stanford university)
- Computational neuroscience (Washington university)
- Machine Learning for Data Science and Analytics (Columbia university)
- Introduction to machine learning (in person)
- Deep learning (Audit, in person)
- Biostatistics (in person, grade: A)
- Numerical method II (in person, grade: A)
- Design algorithm and complexity (in person, grade: A)
- Reinforcement learning

## Computer skills

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- Engineering & programming software:  
**Matlab** (EEGlab toolbox, Simulink,...), Microsoft visual studio (visual basic, **Visual C++**, C#), Atmel Studio, **R** programming, **Python**, **Keras**, code vision AVR, LabView, NetLogo, Keil uVision, STM32cube MX, PSpice/Orcad, Spss, LTspice, Altium Designer, Proteus, DTI explorer (familiar)
- Application:  
Microsoft Office, Photoshop, End note, ...

## Language skills

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- English: Fluent
  - TOEFL: 88 (Reading: 22, Listening: 22, Speaking: 19, Writing: 25)
  - GRE: 307 (verbal: 142, Quant: 165) – writing: 3
- Persian: Native
- Istanbul Turkish: Familiar (listening & speaking)
- Arabic: Familiar

## References

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- Farzad Towhidkhah

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- Golnaz Baghdadi

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