

# HAMED GHAZIKHANI

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## SUMMARY

I am currently a PhD student of Computer Science and a research assistant at the Bioinformatics Laboratory at Concordia University, under the supervision of Dr. Gregory Butler. I am a motivated, ambitious and enthusiastic computer and software engineer with expertise in Artificial Intelligence. I have worked as a software engineering for 8 years and have developed a strong passion for research and a solid understanding of the field.

## EDUCATION

<b>Doctor of Philosophy in Computer Science</b>	2019-2022
Concordia University, Gina Cody School of Engineering and Computer Science	
<i>Dissertation title:</i> -	
<i>Supervisor:</i> Dr. Gregory Butler	
<i>GPA:</i> -	
<i>Honors:</i> -	
<b>Master of Science in Artificial Intelligence</b>	2015-2018
Ferdowsi University of Mashhad, Computer Engineering Department	
<i>Dissertation title:</i> "A deep network approach using nonlinear features for P300 BCI speller"	
<i>Supervisor:</i> Dr. Modjtaba Rouhani	
<i>GPA:</i> 17.59/20	
<i>Honors:</i> Ranked top student in the department	
<b>Bachelor of Science in Software Engineering</b>	2008-2010
Sadjad University of Technology	
<i>Dissertation title:</i> "Online Shopping"	
<i>Supervisor:</i> Dr. Javad Hamidzadeh	
<i>GPA:</i> 14.53/20	
<i>Honors:</i> Participated in the ACM competition	
<b>Associate Degree in Software Engineering</b>	2006-2008
Montazeri Technical College of Mashhad	
<i>Dissertation title:</i> "Dynamic CD catalogs"	
<i>Supervisor:</i> Dr. Alireza Sanaei	
<i>GPA:</i> 15.42/20	
<i>Honors:</i> Scholarship awarded	

## SELECTED COURSES

	Grade
Bioinformatics	A
Machine Learning	A
Learning Theory	A
Artificial Neural Networks	A
Image Processing	A
Expert Systems	A
Evolutionary Algorithms	A

## HONORS AND AWARDS

• Ranked #1 and received the top student award for the major of Artificial Intelligence	2018
• Ranked within the top 5% in the Public Universities Entrance Exam for B.Sc.	2008
• Ranked 645 out of 109,309 (top 0.5%) in the Public Universities Entrance Exam	2006
• Ranked #1 and #2 in the Public Exams of Computer Science	2005
• Ranked the top student in high school	2005

## RESEARCH INTERESTS

Investigations to ascertain new Machine Learning algorithms and apply them to various fields.

Bioinformatics, Machine Learning, Deep Learning, Neural Networks, Bio-signal processing, Brain-Computer Interface

## PUBLICATIONS

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- [1] H. Ghazikhani and M. Rouhani, "A Stacked Autoencoders Approach for a P300 Speller BCI," *2018 8th International Conference on Computer and Knowledge Engineering (ICCKE)*, Mashhad, Iran, 2018, pp. 1-6. doi: 10.1109/ICCKE.2018.8566534  
URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8566534&isnumber=8566242>
- [2] H. Ghazikhani, M. Rouhani, "A deep neural network classifier for P300 BCI speller based on Cohen's class time-frequency distribution", *Biomedical Signal Processing and Control*. (2019). [Under Review]

## PROJECTS

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### ACADEMIC

- Thesis: Implemented the whole system, such as the deep neural networks architecture.
- Machine Learning: Completed numerous projects in the field of Machine Learning and BCI.
- Scene Recognition: Established the 'Best Project' in the Scene Recognition for Computer Vision course.
- Neural Network: Implemented traditional model of neural networks in Artificial Neural Network course.
- Expert Systems: Implemented and submitted substantial projects and novel reports related to the Expert Systems course in the field of Signal processing and Artificial Intelligence.
- Evolutionary Algorithms: Implemented numerous projects in the field of Evolutionary Algorithms course, such as, GA, etc.
- Statistical Learning Theory: Implemented a paper related to the Statistical Learning Theory course.
- Publications: Have submitted numerous reports and ideas to professors regarding optimization of existing papers, especially on their parameters.

### INDUSTRY

- Web API: A strong RESTFUL Web Api to handle all application requests. Without this, the SQL codes had to be directly written into the body of the application. This development was a new and useful service to companies. **Apr. 2016**
- Touchable Kiosk Application: A device, which users can buy items from the E-Shop. It was developed with the Windows 10 application developer tools and Universal Windows Platform (UWP). **Jan. 2016**
- Send to Printer: Windows application for Android devices. This application sent JSON information to a printer, via socket programming. **Sept. 2015**
- Contract Software: An application for professionally saving, editing and printing contracts. It was developed via Delphi Development tools. With this application, individuals could simply save their contracts, edit them as required and automatically print them. Documents could be conveniently signed by authorities, which saved time during contracting. **2012**

## SEMINAR AND WORKSHOPS

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- P300 Detection and Applications **Aug. 2017**
- Statistical Learning Theory **May 2017**
- Metric Learning **Feb. 2017**

## EXPERIENCES

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### ACADEMIC

- Teaching Assistant, Artificial Neural Network Course** **2018**  
*College of Engineering, Ferdowsi University of Mashhad*
- Prepared lectures and class activities focusing on the Neural Network algorithms
  - Created and graded course assessments to ensure students understood material and stayed on track.
- Graduate Research Assistant** **2017**  
*Machine Learning Lab, Department of Computer Engineering, Ferdowsi University of Mashhad*
- Coordinated and collaborated with faculty, staff scientists, and fellow graduate students across departments.
  - Designed and executed various Machine Learning projects.

## Instructor, Sun Institute

- Taught various fields of software technology, such as Adobe Flash and Adobe Director. 2011

## INDUSTRY

**Software Developer** 2018-2019

*Mostafavi Saffron Company*

- Working on UWP (Universal Windows Platform) project.

**Senior Software Developer** 2015-2017

*Mostafavi Saffron Company*

- Completed numerous projects, such as websites, Windows applications, Web services, etc.

**Software Developer** 2012-2014

*Toos Hard Porcelain Factory*

- Participated in and excelled numerous existing applications.

**Trader** 2010-2011

*Samimi Trade Center*

**Internship** 2010

*Sadjad University of Technology*

- Built numerous websites with PHP

## TECHNICAL SKILLS

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- Programming languages and mathematical packages: Matlab, Python, C#, PHP, JavaScript, HTML, CSS and jQuery
- Computer softwares: Photoshop, Corel Draw, Flash, Office, etc.
- Technologies: MySQL, MS SQL Server, ASP.Net, Entity Framework, RESTful, JSON, AJAX, etc.
- Operating Systems: Mac OS, Windows OS

## LANGUAGES

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**Persian:** Fluent

**English:** Full professional proficiency

**French:** Limited knowledge

**German:** Basic knowledge

## MEMBERSHIPS

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**Scientific Forum** 2009

*Sadjad University of Technology*

- Participated in numerous scientific activities, such as making posters and establishing a seminar.

**Charity**

*Sadjad University of Technology*

2008

- Numerous activities relating to orphan children

## VOLUNTEER WORKS

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**AI Debate** 2019

- Check in controls.

**Website for Pilgrims**

- A website designed for registering, reporting, and moderating pilgrims who wish to walk to Mashhad for Imam Reza testimonial days. 2015

## HOBBIES AND INTERESTS

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- Mountain Climbing
- Researching
- Watching Movies
- Playing Santour
- Reading Books
- Nature

## REFERENCES

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**Gregory Butler, Professor**

Department of Computer Science

Concordia University

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