First page: M.Sc., Computer Engineering: AI and Robotics, University of Tehran

Second page: M.Sc., Data Science and Engineering, Politecnico di Torino

Third page: Minor in Computer Engineering, University of Tehran

Fourth page: M.Sc., Mechanical Engineering, University of Tehran

# Notes:

**University of Tehran M.Sc. Thesis Title:** Risk Sensitivity and Cumulative Prospect Theory in Multi-Agent Reinforcement Learning and Markov Games

# University of Tehran M.Sc. Course Descriptions:

Special Topics in Control Engineering 1: Reinforcement and Interactive Learning Special Topics in Control Engineering 3: Distributed Optimization and Learning

# In The Name Of God

# University of Tehran Transcript of University Grades



Student No : 810199239

Faculty : College of Engineering

Major : Computer Engineering

Artificial Intelligence and

Robotics

Last Name : Ghaemi

Date of Birth: 1998/03/08

First Name : Hafez

SSNO: 0020922639

Total Passed Units: 12 GPA: 18.50

Level : Master



Academic Ye Semester Sta Course Title	ar 2020-2021 1 tus : Normal	Credit	Grade	e Effect	Academic Yes Semester State Course Title	ar 2020-2021 2 tus : Normal	nd. Semester	Credit	Grad	le Effect	
Machine Learning			3	20		Seminar			2	IC	3
Special Topics in Control Engineering 1		3	20		Special Topics	s 2		3	ED	3	
A STATE OF THE TOTAL CONTROL OF THE STATE OF						Principles of cognitive science			3	19	
Semester GPA 20.00	Registered Unit(s)	Semester Passed Unit(s)	Total Passed U	Jnit(s) (	Cumulative GPA 20.00	Semester GPA 19.00	Registered Unit(s) 8	Semester Passed Unit(s)	Total Passed U	Jnit(s)	Cumulative GPA 19.67
Academic Year 2021-2022 1st. Semester Semester Status : Normal Course Title			Credit	Grade	e Effect	Academic Year 2021-2022 2nd. Semester  Semester Status : Planned Education Leave  ct Course Title Credit Grade E					
Seminar			2	IC	3						
Neural Networks		3	ED	3							
Social Netwo	rk		3	15							
Semester GPA	Registered Unit(s)	Semester Passed Unit(s)	Total Passed U	Init(s) (	Cumulative GPA	Semester GPA	Registered Unit(s)	Semester Passed Unit(s)	Total Passed U	Init(s)	Cumulative GPA
15.00	6	3	12		18.50		0	0	12		18.50
Academic Ye Semester Sta	ar 2022-2023 1 tus : Normal	st. Semester				Academic Sta	atus				
Course Title			Credit	Grade	Effect	Full mark is	20				
Seminar			2	IC	3	Last Status :	Normal				
Neural Netwo	rks		3	NR	3						
Special Topics in Control Engineering 3			3	NR	3						

## NOTE:

**GPA** 

Thesis Semester

In "Effect" column:

"1", Indicates that the total passed unit(s) is not affected by this course.

Unit(s)

0

- "2", Indicates that the cumulative gpa is not affected by this course.
- "3", Indicates that the total passed unit(s) and cumulative gpa are not affected by this course.

Semester Passed Total Passed Unit(s)

In "Grade" column the following abbreviations are used:

NR Not Reported
R Reported
IC Incomplete
ED Emergency Drop

Registered

Unit(s)

12

# GENERAL DIRECTOR OF ACADEMIC AFFAIRS Mohammad Mirehei Ph.D

18.50

signed and sealed

Date: 2022/10/18 NOT VALID WITHOUT SIGNATURE AND SEAL OF REGISTER END OF TRANSCRIPT



IT IS HEREBY CERTIFIED THAT

Student ID 289963 GHAEMI HAFEZ Surname Name

TEHRAN (IRAN) Place of Birth Date of Birth 08/03/1998 GHMHFZ98C08Z224X Fiscal Code

Graduated on 29/07/2022 in

Laurea Magistrale (Master of science-level) in DATA SCIENCE AND ENGINEERING COMPUTER SYSTEMS ENGINEERING DEGREE CLASS (LM-32)

He graduated with the following grade: 103/110.

The study plan is made up of the following examinations:

YEAR: 1 010XGLZ Italian language 2nd level	passed 27/30 28/30	29/06/2022 <sup>(8)</sup> 21/06/2021		L-FIL-LET/12
DIOXGLZ Italian language 2nd level	27/30	-		L-FIL-LET/12
		21/06/2021		
01TUYSM Distributed architectures for big data processing and analytics	28/30		8	ING-INF/05
OITWYSM Computational linear algebra for large scale problems		14/06/2021		MAT/03 MAT/08
01TWZSM Data science lab: process and methods	22/30	25/01/2021	8	ING-INF/05
01TXASM Data management and visualization	26/30	17/06/2021	8	ING-INF/05
01TXESM Information Theory and Applications	21/30	19/02/2021	8	ING-INF/03
01TXFSM Machine learning and Deep learning	26/30	20/07/2021	10	ING-INF/05
01TXGSM Mathematics in Machine Learning	29/30	12/07/2021	4	MAT/03 SECS-S/01
01URZSM Data Ethics and Data Protection	22/30	09/07/2021	3	ING-INF/05 IUS/01
YEAR: 2		T		ING-INF/05
OLOVFOV Bioinformatics	22/30	04/07/2022		ING-IND/16
DITXISM Innovation management	26/30	24/01/2022	3	ING-IND/16 ING-IND/35
BITXLSM Network Dynamics and Learning	30/30	02/02/2022	8	MAT/05
	30/30	28/01/2022	6	ING-INF/05
	30/30	11/02/2022	2 8	ING-INF/05
01VIXSM Deep natural language processing	passed	29/07/2023	2 22	*** N/A ***

Grades distribution [% comulative]. 30L[12,92], 30[29,67], 29[40,21], 28[51,57], 27[61,38], 26[70,13], 25[76,97], 24[82,89], 23[86,91], 22[90,4], 21[93,24], 20[95,51], 19[97,28], 18[100], 20[95,91

Decentralized Value-Based Reinforcement Learning in Stochastic Potential Games

The course was held in the following languages: 100% English.

a copy of this document, for verification, is available at the url http://sid-polito.it/TinyUrl-1.0/verifypdf/html?url=K26GYTs97yd





He enrolled for the first time in the abovementioned course on 15/10/2020.

The student has been enrolled in the following academic years:

A.Y.	University	Type of enrollment	Course
2020/2021	POLITECNICO DI TORINO	FULL-TIME	Corso di Laurea Magistrale in DATA SCIENCE AND ENGINEERING (LM-32)
2021/2022	POLITECNICO DI TORINO	FULL-TIME	Corso di Laurea Magistrale in DATA SCIENCE AND ENGINEERING (LM-32)

The standard duration of the abovementioned degree course was 2 years.

In compliance with the Italian Laws (D.P.R. 445/2000, art. 40), this certificate is issued only for abr



a copy of this document, for verification, is available at the url http://sid.polito.it/TinyUrl-1.0/verifypdf/pdf.html?url=K26GYTs97yd





Date: October 8, 2020

Subject: Certificate of Enrollment for the Minor in Computer Engineering

This is to certify that Mr. Hafez Ghaemi with student ID. 810695285 has enrolled for the minor in Computer Engineering in the  $2^{nd}$  semester of 2018-2019 and has successfully passed the following courses from the program:

COURSE TITLE	CREDIT	GRADE
INTRODUCTIO TO COMPUTERS AND PROGRAMMING	3	20
DISCRETE MATHEMATICS	3	12.9
ADVANCED PROGRAMMING	3	16
COMPUTER ARCHITECTURE	3	16.4
ARTIFICIAL INTELLIGENCE	3	18.5
DATA STRUCTURES	3	12.5

The official certificate will be issued upon completion of the minor in Computer Engineering program requirements.

Saeed Safari

Vice Dean for Undergraduate Studies School of Electrical and Computer Engineering University of Tehran

School of Electrical and Computer Eng. College of Engineering University of Tehran Tehran, Iran P.O. Box: 14395/515 Tel: +98.21 8802.7756 Fax:+98.21 8877.8690 http://ccc.ut.ac.ir e-mail: cecchair@ut.ac.ir



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بسمه تعالى

شماره: ۱۳۹۹/۱۰/۱۳ تاریخ: Date: 2021-01-02

# گواهی پایان دوره کهاد

گواهی می شود

آقای حافظ قائمی دارای کدملی ۰۰۲۰۹۲۲۶۳۹ دوره **کباد مبندسی کامپیوتر** را به ارزش ۱۹ واحد در تاریخ ۱۳۹۹/۰٤/۳۱، در پردیس دانش*کدههای فنی د*انشگاه تبران با موفقیت به پایان رسانده است.

This is to certify that:

Mr. Hafez Ghaemi, holder of National ID 0020922639, has successfully completed all requirements of the Undergraduate Minor Program in Computer Engineering on 2020-07-21 by completing 19 semester credit hours of coursework.

دکتر سیامک هاجی بخچالی مدیر دفتر آموزش های آزار دانشگاه تهران

or. Siamok Haji-Yakhchali Chair of Professional Education Center University of Tehran ئیس پرکیس کانشکاه تبران

Prof. Nasser Soltani Dean of College Engineering University of Tehran



#### In The Name Of God

## University of Tehran

## Transcript of University Grades



Student No : 810695285 First Name : Hafez

Last Name : Ghaemi ID.No: 0020922639 Date of Birth : 1998/03/08

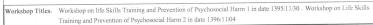
Faculty : College of Engineering

Major : Mechanical Engineering

Total Passed Units: 143 GPA: 16.24

Level Bachelor

Graduate Date : 2020/09/21



	11011	ning and Freveni									
Academic Year 2016–2017 1st. Semester EXCELLENT IN TERM					Academic Year 2016-2017 2nd. Semester						
Semester Stat	us : Normal					Semester State	us : Normal		Credit	Grade	Effect
Course Title			Credit	Grade	Effect	Course Title					Ellect
Physics Laboratory 1			. 1	15		Statics			3	11.14	
Persian Language			3	20		English Langu	age		3	18.5	
Physics 1			3	13.6		Differential Ec	quations		3	10.25	
Calculus 1		3	16.5		Physics 2			3	11.08		
Islamic Thought 1 (Beginning and Resurrection)		2	20		Calculus 2			3	15.1		
Analytical His	tory of Beginni	ng Islam	2	20		Islamic Revolu	ation in Iran		2	18	
Family Schem	atization and Pe	opulation	2	19		Thematic Inter	pretation of the	e Quran	2	20	
Fundamentals	of Computer ar	nd Programming	2	18							
Semester	Registered	Semester Passed	Total Passed U	Init(s) C	umulative	Semester	Registered	Semester Passed	Total Passed I	Jnit(s) C	umulative
GPA	Unit(s)	Unit(s)			GPA	GPA	Unit(s)	Unit(s)			GPA
17.74	18	18	18		17.74	14.43	19	19	37		16.04
Academic Ye	ar 2017–2018 I	st. Semester				Academic Ye	ar 2017-2018	2nd. Semester			
Semester Stat						Semester Stat	us : Normal				
Course Title			Credit	Grade	Effect	Course Title			Credit	Grade	Effect
Dynamics			4	14		Strength of M	aterials Labora	tory 2	1	14.8	
Machine Tool Workshop			1	18		Fundamentals	of Mechanical	1	16.8		
Strength of Materials 1			3	10.5		Thermodynan	nies I	3	13.5		
Engineering Mathematics			3	17.25		Materials Scie	ence		3	20	
Numerical Computation			2	20			Metal Forming	Workshop	1	16	
Islamic Thought 2 (Prophethood and Imamat)		2	20		Strength of M	_		2	14.5		
Islamic Thought 2 (Prophethood and Imamat)  Islamic Ethics (Principles and Concepts)		2	20		Fluid Mechan			3	14		
Physical Cher		(Concepts)	3	20		Physics Labor			ī	19	
rnysicai Chei	msuy		-	\$		Industrial Dra			2	19	
						Engineering Probability			2	12.25	
						Physical Educ			1	20	
		a	Total Passed U	tulens C	Samuel Salara	Semester	Registered	Semester Passed	Total Passed	Unites C	umulative
Semester	Registered Unit(s)	Semester Passed Unit(s)	Total Passeu (	Jilit(8)	GPA	GPA	Unit(s)	Unit(s)			GPA
16.86	20	20	57		16.33	16.03	20	20	77		16.25
					10.55						
	ear 2018-2019	1st. Semester						2nd. Semester			
Semester Sta	tus : Normal					Semester Sta	tus : Normal			Grade	Effect
Course Title			Credit	Grade	Effect	Course Title			Credit		Effect
Mechanical V	'ibrations		3	13.9		13	nics Laboratory	/ 2	1	17.4	
Fluid Mechar	nics Laboratory	2	1	15.2		Principles of			3	16.3	
Circuit and Electric Machines		3	18.73		Dynamics of			3	15.7		
Heat Transfer 1		3	15.5			g Processes and		3	. 18		
Thermodynamics 2		3	16.75		1.	e Element Met		3	16.2		
Design of Machine Elements 1		3	17			chine Elements	3 2	3	16.45		
Fluid Mechanics 2		3 -	15		Automatic Co	ontrol		3	13.5		
Technical W	riting		1	19.1		Sport 1			1	20	
Semester	Registered	Semester Passed	Total Passed	Unit(s)		Semester	Registered	Semester Passed Unit(s)	Total Passed	Unit(s)	Cumulative GPA
GPA	Unit(s)	Unit(s)			GPA	GPA	Unit(s)	20	117		16.26
16.25	20	20	97		16.25	16.29	20	20	117		10.20



#### In The Name Of God

## University of Tehran

## Transcript of University Grades

Academic Y	ear 2018-2019	Summer Semester				Academic Ve	ar 2019-2020	1st Semester			
Semester Sta	itus : Normal					Semester Sta		13t. Demesiei			
Course Title			Credit	Grad	e Effect	Course Title			Credit	Grade	Effec
Training 1			1	18	3	Systems Anal	ysis		3	12.2	
						Dynamics and	Vibrations La	boratory	1	17.5	
						Engineering E		,	2	15.25	
						Automechania	s Workshop		1	18	
						Senior Design	Project		3	IC	3
						Optimization	of Mechanical	Systems	3	16.92	
Semester	Registered	Semester Passed	Total Passed U	Jnit(s)	Cumulative	Semester	Registered	Semester Passed	Total Passed U	Init(s) C	umulative
GPA	Unit(s)	Unit(s)			GPA	GPA	Unit(s)	Unit(s)			GPA
	0	0	117		16.26	15.34	13	10	127		16.19
Academic Year 2019-2020 2nd. Semester						Academic Ye	ar 2019-2020	Summer Semester			
Semester Sta	tus : Normal					Semester Stat	us : Normal				
Course Title			Credit	Grade	e Effect	Course Title			Credit	Grade	Effec
Game Theory			3	17.5		Training 2			1	18	3
Electrical and Electronics Laboratory				20							
Senior Design Project			3	17.5							
Computations	al Fluid Dynam	ics	3	14.5							
Product Desig	gn and Develop	ment	3	15.25							
Measurement	Systems and Ir	nstrumentation	3	17.5							
Semester	Registered	Semester Passed	Total Passed U	nit(s)	Cumulative	Semester	Registered	Semester Passed	Total Passed U	nit(s) C	umulative
GPA	Unit(s)	Unit(s)			GPA	GPA	Unit(s)	Unit(s)			GPA
16.67	16	16	143		16.24		0	0	143		16.24
Academic Sta	atus					NOTE:					
Full mark is 20						In "Effect" col	umn:				
Last Status : Graduate Date : 2020/09/21						"1", Indicates that the total passed unit(s) is not affected by this course.					
								tive gpa is not affec			
							hat the total pa	ssed unit(s) and cun	nulative gpa are	not affecte	ed by this
						course.					
						In "Grade" column the following abbreviations are used:					
						R		Reported			
						IC		Incomplete			

GENERAL DIRECTOR OF ACADEMIC AFFAIRS

ALI TAHERI MIRGHAED Ph.D

Date: 2021/01/06

NOT VALID WITHOUT SIGNATURE AND SEAL OF REGISTER

