

# SEYED ALIREZA FATEMI JAHROMI

afatemi@ce.sharif.edu ◇ alirezafa@rocketmail.com ◇ seyedalirezafatemi.github.io

Tehran, Iran

Date of birth: October 8<sup>th</sup>, 1998

## EDUCATION

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<b>Sharif University of Technology, Tehran</b>	<i>2016 - Present</i>
Bachelor of Science in Computer Engineering	GPA: 18.62/20
<b>Shahid Dastgheib High School, Shiraz</b>	<i>2012 - 2016</i>
Diploma, National Organization for Development of Exceptional Talents (NODET)	GPA: 19.69/20

## HONORS

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Recipient of the grant and membership of **Iran's National Elites Foundation**, for outstanding academic success. *Summer 2016 - Present*

Ranked **5th** in Multi-organ Nuclei Segmentation and Classification (MoNuSAC) 2020 Challenge and Ranked **3rd** in the Post-Challenge Leaderboard. MoNuSAC 2020 Challenge was an official satellite event of ISBI 2020. I was one of the three members of Sharif HooshPardaz Team. We were invited to present our method in the MoNuSAC 2020 Workshop. *Spring-2020*

Ranked **3rd** in the Eleventh Sharif VC Cup. I was a member of Sharif HooshPardaz Team. *Winter-2020*

Reached the final stage of Artificial Intelligence Challenge in Medical Imaging 2019, Intelligent Assessment of Imaging Biomarkers of Dementia. *Fall-2019*

Ranked **8th** in the MICCAI Automatic Prostate Gleason Grading Challenge 2019. We were invited to present our method in MICCAI 2019 conference, which was held in October 2019, Shenzhen, China. *Fall 2019*

Ranked **3rd** in the First National EEG Data Analysis Competition with Clinical Applications organized by National Brain Mapping Lab (NBML). *Summer-2019*

Ranked **1st** in the third Sharif ICT Challenge (Fintech) among 65 chosen teams. *Summer 2019*

Ranked **12th** in code-cup contest among approximately 3100 participants. *Fall 2018*

Ranked **top 0.08%** in the National Entrance Exam (Konkour) among all Iranian Students (Ranked 131th among approximately 163000 applicants) in Math. & Physics. *2016*

Ranked **top 0.1%** in the National Entrance Exam (Konkour) among all Iranian Students (Ranked 229th among approximately 115000 applicants) in Foreign Languages. *2016*

## PUBLICATIONS

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- [1]\* A. Khani, **S.A. Fatemi Jahromi**, H. Otroshi Shahreza, H. Behroozi, M. Soleymani Baghshah, "Towards Automatic Prostate Gleason Grading via Deep Convolutional Neural Networks", *The 5th Iranian Conference on Signal Processing and Intelligent Systems (ICSPIS 2019)*, Shahrood, Iran, 2019
- [2]\* **S.A. Fatemi Jahromi**, A. Khani, H. Otroshi Shahreza, B. Otroshi Shahreza, H. Behroozi, M. Soleymani Baghshah, "A Deep Learning Framework for Viable Tumor Burden Estimation", To be submitted soon

## RESEARCH INTERESTS

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Computer Vision & Graphics  
Machine Learning & Deep Learning  
Artificial Intelligence  
Software Engineering

## WORK EXPERIENCE

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### **Robust and Interpretable Machine Learning Lab, Tehran**

*Summer 2020 - Present*

*Researcher*

I'm currently working on my undergraduate thesis in the Robust and Interpretable Machine Learning Lab under the supervision of Prof. Rohban. My thesis is about the use of Semi-Supervised Learning and Self-Supervised Learning in the context of Adversarial Robustness.

### **Iran's National Elites Foundation, Shahid Ahmadi Roshan Projects, Tehran**

*Spring 2019 - Summer 2020 (18 months)*

*Researcher*

I was a member of a project funded by Iran's National Elites Foundation and supervised by Prof. Behroozi and Prof. Soleymani, focused on Medical Image Analysis. My Responsibilities included:

- . Researching state-of-the-art Deep Learning techniques and applying them to different applications in the medical field, such as digital pathology. This was my main objective in this project. My research was focused on text classification and segmentation of different types of cancer in digital pathology images. I worked with Whole Slide Images from various organs such as Liver, Colon, and Prostate. I also worked on classifying and segmenting Covid-19 patients' CT Scan images and 3D brain MRI images. I gained experience working with different learning paradigms such as Self-Supervised Learning, Semi-Supervised Learning, Fully-Supervised Learning, and Multiple-Instance Learning.
- . Meeting with hospital, clinic, and laboratory managers for requirements engineering and data collection.
- . During this time, I also led a software team of two plus myself as a side-project. We developed a follow-up automation software used to discharge patients and help hospitals and clinics stay in touch with their patients and coordinate patients' next check-ups. It also provided patients with educational content. We developed this system for Sina Hospital. Some of the technologies we used in this project comprise React, Next.js, GraphQL, WordPress, Django, Firebase.

### **Iran's National Elites Foundation, Shahid Ahmadi Roshan Projects, Tehran**

*Spring 2019 - Summer 2019 (6 months)*

*Front-end Web Developer*

I was a member of a project funded by Iran's National Elites Foundation and supervised by Prof. Heydarnoori, focused on developing a Real-time locating system. I worked as a Front-end Web Developer, and my main task was to develop the admin panel of this system. Some of the technologies I used in this project comprise React, Redux, Redux Saga.

### **Rahnema College Internship, Tehran**

*Summer 2018*

*Software Engineer & Team Leader*

During the 7-week internship program, I gained experience in the following areas of Software Development:

- . Teamwork
- . Scrum
- . UI/UX
- . Full Stack Development

## TECHNICAL STRENGTHS

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<b>Programming Languages</b>	C, C++, Java, Kotlin, JavaScript, TypeScript, MATLAB, R, Python, Racket, Scheme, Swift
<b>HDL</b>	Verilog
<b>Machine Learning</b>	TensorFlow, Keras, PyTorch, Scikit-learn, Pandas, NumPy
<b>Software &amp; Tools</b>	L <sup>A</sup> T <sub>E</sub> X, Git, JIRA, Adobe XD
<b>Web</b>	React, ReactNative, Django, Gatsby, Next, GraphQL, Docker, Flask

## PERSONAL TRAITS

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Highly motivated and eager to learn new things.  
Strong motivational and leadership skills.  
Ability to work as an individual as well as in group.

## LANGUAGES

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Persian: Mother Tongue  
English: Fluent

## REFERENCES

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**Prof. Dr. Hamid Behroozi**

*Assistance Professor, Electrical Engineering Department, Sharif University of Technology, Tehran, Iran.  
Email: behroozi@sharif.edu*

**Prof. Dr. Mahdieh Soleymani Baghshah**

*Assistance Professor, Computer Engineering Department, Sharif University of Technology, Tehran, Iran. Email: soleymani@sharif.edu*

**Prof. Dr. Abbas Heydarnoori**

*Assistance Professor, Computer Engineering Department, Sharif University of Technology, Tehran, Iran. Email: heydarnoori@sharif.edu*