Seyed Sajad Kahani

Mr.

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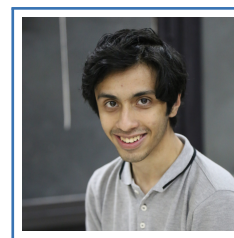🌐 sesajad.me
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Date of birth: 9 May 1998
Place of birth: Tehran, Iran

Education

2022-now	**M. Sc. of Quantum Technologies**, *Dept. of Physics and Astronomy, UCL*, London, UK
	Thesis: **Compilers for Hamiltonian Evolutions**
	Supervisor: Prof. Browne
2016–2021	**B.Eng. of Computer Engineering**, *Dept. of Computer Engineering, SUT*, Tehran, Iran
	Final score: 18.38 out of 20
	Thesis: **A Quantum Algorithm for Point In Polygon** (available on ○)
	Supervisor: Dr. Abam

Interships

Summer 2018	**Software Enginnering Intern**, *Iranian National Observatory*, Tehran, Iran
	○ Development of automated controller software for the lens array Instrument.
Fall 2018	**Data Science Intern**, *Divar Classified Ads, Hezardastan Group*, Tehran, Iran
	○ Extraction of informative tags (words) from image (image tagging)
	○ Category prediction with image and text (for ads)

Honors

2021	**10th**, National University Entrance Exam for MSc Degree in Physics, Iran
2015	**(5th) Gold Medal**, 28th National Physics Olympiad, Iran

Work Experiences

2019-2022	**Co-Founder and Team Leader**, *Phanous Research and Innovation Centre*, Tehran, Iran
	○ Establishment of the quantum lab
	○ Designing a new process coordination method for R&D environments, called gatekeeping
	○ Establishment of the R&D center
2015–2019	**Various Roles at Engineering Department**, *Hezardastan Group*, Tehran, Iran
	○ **Data Scientist** at *Balad Maps*
	– Time of arrival estimation
	– City traffic data dimension reduction
	○ **Product Manager** at *Inline Apps Platform of Cafe Bazaar App Store*
	– Helping growth from 5K up to 100K daily users.
	– Enhancement of documentations and support.
	– Introducing effortless authentication and location entry and other high-end features.
	○ **Android Developer** at *Cafe Bazaar App Store*
	– Redesigning the authentication system to use OTP.
	– Designing and implement a custom CI/CD system with encrypted key storage.
	– System ownership of the client app.
	– Making a platform to run apps immediately called "Inline Apps".

Consulting

2023	**Technical Consultant**, *MetaZi Financial Group*, Tehran, Iran
2021	**Technical Advisor**, *Iranian National Observatory*, Tehran, Iran
2017	**Technical Advisor**, *Arkan Ara Medical Devices*, Tehran, Iran

Teaching

2021	**Tutorial Instructor**, *Quantum Algorithms* , 1000qubit Workshop, *Phanous Research and Innovation Centre*
	Teacher Assistant, *Various Courses*, Sharif University of Technology, Tehran, Iran
	○ *Distributed Systems* in Dept. of Mathematics
	○ *Fundamentals of Programming* in Dept. of Computer Engineering
	Physics Olympiad Teacher, *Various Highschools*, Iran

Programming Skills

Web	Gin, GORM (Golang) Django, Flask ExpressJS, React	Distributed Computing	PySpark, Spark (Scala)
		Scientific Computing	NumPy, JAX, Julia SimPy, SageMath OpenCL, CUDA
Cloud Services	AWS, Azure		
Data Science	Tensorflow, PyTorch Pandas, Scikit-Learn OpenCV	Computer Graphics	WebGL (JS), OpenGL (C++)
		Containerization	Docker
		Orchestration	Kubernetes
GNU/Linux	WMs, Systemd, Networking		

Development Experiences

The complete list is available on ⍟

2021	**Jing ⍟** , Performing instruments in a simple AR environment
2020	**From X to Y in Z Days with Spotify ⍟** , A tool that helps changing mood using Spotify
2019	**Solovay-Kitaev Simulation ⍟** , A visualization for solovay-kitaev theorem
2018	**Numeric ⍟** , A library for numerical analysis
2016	**Kaashi ⍟** , A turing complete JSON-like declarative language

Open-Source Contributions

Wiki.js ⍟	*small contribution*
Tensorflow Scala ⍟	*small contribution*
ACM ICPC Regional OS Image ⍟	*medium contribution*

Research Interests

Quantum Machine Learning, Quantum Complexity Theory
Type Theory and Programming Languages

Research Experiences

2020-2022	**Researcher**, *QuOne Lab*, Phanous Research and Innovation Centre, Iran Supervisor: Dr. Beigi
2019-2021	**Researcher**, *QIS Group*, Dept. of Physics, SUT, Tehran, Iran Supervisor: Prof. Karimipour

Activities

2021	**Reviewer**, *QIP (25th Annual Conference on Quantum Information Processing)*, Pasadena, USA Reviewing *2* submissions.
2021	**Reviewer**, *IEEE ISIT (International Symposium on Information Theory)*, Melbourne, Australia Reviewing *1* submission.

Publications and Academic Presentations

2022	**SS Kahani**. **Quantum Optimizers for Real-world Problems**. Computer Webinar Series, *Amirkabir University of Technology*. (Industrial Talk)
2022	AH Moosavian, **SS Kahani**, S Beigi. **Limits of Short-Time Evolution of Local Hamiltonians**. Quantum Journal, 6, 744.

Languages

Native	Persian
Advanced	English (TOEFL score: 102, R: 28, L: 27, S: 23, W: 24), Levantine Arabic
Beginner	German, Greek