Amirehsan Davoodi

Nationality: Iranian

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Education

PhD Candidate in Artificial Intelligence   *09.2022-Present*

Amirkabir University of Technology, Tehran, Iran

   AI Researcher, AGML Center, Center for Advances in Graph Machine Learning

Master of Science in Artificial Intelligence   *09.2017-09.2020*

Universita della Svizzera Italiana (USI), Lugano, Switzerland

   Thesis: *"Goal-directed graph generation for anomaly detection on time series"* **GPA 8.04/10**

   In this Master's thesis, we examine the potential advantage of representing a time-series as a sequence of graphs, with the end goal being to be able to develop a methodology for anomaly detection on univariate time-series data. As a case study, we considered the problem of arrhythmia detection on an ECG signal.

Bachelor of Science in Computer Engineering   *09.2009-02.2014*

Shahrood University of Technology, Shahrood, Iran

   Thesis: *"A free posting advertisement platform for various mobile platforms"* **GPA 17.38/20**

   Design and implementation of a free posting advertisement platform on various mobile platforms (IOS, Android, Windows Phone, and Symbian) based on four different operating systems using four different programming languages.

Experience

Rayan Traineeship   *10.2023-Present*

National Elite Foundation, Tehran, Iran

Rayan Traineeship program is a one year project which selected top 4% national elites are selected to be trained for the managerial rolls and pave the path for the digital transformation of the ICT, Information and Communication Technology, ecosystems of Iran.

As a selected participant, I working under the mentorship of top private companies CEO and ICT deputy ministers. Learned directly from more than 30 high-ranking officials, previous ministers, deputy ministers and CEO of top private companies.

Full-stack developer   *07.2022-07.2023*

Tali AI, Toronto, Ontario, Canada

Tali is a virtual assistant that offers free AI dictation and scribe, and unlimited drug monograph lookup on top all web-based EHR systems.

We are using the following technologies in our team FastAPI, Node.js, Next.js, Vertex AI, MongoDB, PostgreSQL, TypeORM, SQLAlchemy, React.js, Electron.js, Metabase and Retool.

CTO   *01.2022-06.2022*

AdanBaba, Tehran, Iran

AdanBaba is an international e-commerce and retailer company headquartered in Guangdong, China.

I am leading the software development team of seven people. We are using the following technologies in our team Node.js, NestJs, GraphQL, MongoDB, PostgreSQL, TypeORM, Laravel 5, Vue.js, Vant 3 and React 17.

Backend Developer   *03.2021-01.2022*

Limoome, Tehran, Iran

An online diet and health planner for losing or gaining weight. I am working with the following technologies. Node.js, NestJs, GraphQL, MongoDB, PostgreSQL, TypeORM.

Having a data science background, I am also the tech lead for the data science team in the company.

Co-Founder and CTO   *06.2018-09.2020*

UbiHealth, Lugano, Switzerland

A startup based on intelligent wearable technology to enable continuous patient monitoring for a more efficient, effective and sustainable healthcare outcome.

Full-stack Web Developer *12.2016-09.2017*
Vasl Andishan Sepid, Tehran, Iran
A value-added service and aggregator framework provider for the telecommunication company of Iran which providing services such as online media streaming, cloud storage, and voice over IP.

- *Real-time and high-volume transactional system:* Design and development of multiple web services for high volume transaction system for telecommunication company of Iran on paying with phone bill.
- *Filmanet (A media streaming platform):* Design and implementation of web services for *Filmanet*, an Iranian streaming media provider on multiple platforms set-top box, android application and website.
- *UPFI (A free cloud storage platform)* Design and development of *UPFI free cloud storage*, a file hosting and cloud storage service for the telecommunication company of Iran.

Full-stack Web Developer *12.2015-12.2016*
Darkoob Web Agency, Tehran, Iran
A full-stack web agency with more than 50 employees.

- *RentHomeTehran.com:* A real-estate agency website for free posting furnished accommodation in Tehran, Iran.
- *OffUniverse.com:* An e-commerce marketplace connecting subscribers with local merchants by offering best deals in major cities of Thailand.
- *OstadYab.net:* An online tutoring web platform.

Full-stack Web Developer Internship *09.2015-12.2015*
DPM Full-Stack Web Agency, Tehran, Iran
An award-winning Full-Stack Web Agency specializing in front-end, back-end development and digital services.

- Back-end web development with Larevel 5 PHP framework

Software Tester and Back-end Web Developer *02.2014-09.2015*
Intelligent Information Solutions Center, Sharif University of Technology, Tehran, Iran
A knowledge centric center at Sharif university of technology for providing intelligent platform for industrial partners.

- *CPMIS:* Automation testing of "Comprehensive Project Management Information System (A web-based enterprise class project management and information system created for use in large scale enterprises)" using the Selenium testing tool.
- *CSI.ORG.IR:* Web developer for the official website of Computer Society of Iran.

Teaching Assistant *09.2013-06.2015*
Shahrood University of Technology, Shahrood, Iran

- *Software Engineering II:* Designing homework problems and grading of assignments.
- *Computer Networks I:* Designing homework problems and grading of assignments.
- *Fundamentals of Programming with C:* Lecturing, designing homework problems, and grading of assignments.

PUBLICATIONS

ASD-GraphNet: A novel graph learning approach for Autism Spectrum Disorder diagnosis using fMRI data
Mina Zeraati and Amirehsan Davoodi. *Computers in Biology and Medicine*, 196:110723, 2025.
doi:10.1016/j.compbiomed.2025.110723 Link