# Pouyan Hessabi

Date of Birth: 4 December 1999

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# Research Interests

Software Engineering, Agile Development, Software Architecture, Requirement Engineering, Applied Machine Learning, Human Factors in Software Engineering

# EDUCATION

#### Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

2018 - 2023

- Bachelor of Science in Computer Engineering, GPA<sup>1</sup>: 3.26/4.0
- Notable course:
  - BSc. Thesis: A+ - Internship: A+ - Software Engineering 2: A+ - Software Engineering 1: A

- Artificial Intelligence: A - Algorithm Design: A
- Startup Development: A - Mobile Programming: A

# Mofid 2 High School, Tehran, Iran

2014 - 2018

Diploma of Education in Mathematics and Physics, GPA: 3.91/4

# Work and Research Experiences

## BSc. Thesis, Amirkabir University of Technology, Tehran, Iran

Jun 2023 - Sep 2023

- Title: Designing disease diagnosis and physician referral system using microservices architecture.
- Under the supervision of Prof. Amir Kalbasi
- Designed a healthcare system using microservices architecture that includes disease prediction by given symptoms, mapping diseases to particular expertise, and searching physicians.
- Involved software design and engineering principles, microservices architecture and machine learning.
- Implementation technologies: Python, Flask, XGBoost, MySQL, Docker, Git.

• Project Link

#### APM and Scrum Master, Faraadid Company, Tehran, Iran

Apr 2023 - Nov 2023

- Associate product manager of an AI-based platform using computer vision to provide HSE services.
- Assisting CEO, PM, CTO, and HR in product discovery, business analytics, business strategy, process engineering, quality assurance, and performance measurement.
- Established the Scrum framework, led the Scrum team, and facilitated Scrum events in three teams, including AI, MLOps, and Software.

#### Java Developer, Dotin Company, Tehran, Iran

Aug 2021 - Mar 2022

- Java developer in a banking company.
- Worked on an application involving web development skills such as Java SE, Java EE, Hibernate, XML, HTML/CSS/JS, Oracle, clean code principles, and design patterns.
- Business skills encompassed card management, payment processing, card transactions, and facility installments.

<sup>&</sup>lt;sup>1</sup>My Iran GPA was converted to Standard US GPA with this calculator.

# TEACHING EXPERIENCES

#### Head Teaching Assistant, Software Engineering II

Spring 2023

- Under the supervision of Dr Faezeh Gohari at Amirkabir University of Technology.
- Designing (and grading) assignments and projects related to software process, software analysis and design, and testing. Also preparing lecture videos for the students and teaching in the classes.

#### Teaching Assistant, Software Engineering (Software Analysis and Design)

Spring 2023

- Under the supervision of Dr. Ehsan Alirezaei at Amirkabir University of Technology and Tehran University.
- Designing (and grading) assignments and projects related to software process, software analysis and design and requirement engineering.

# TOP ACADEMIC COURSE PROJECTS

#### Information Retrieval, Search Engine

Spring 2022

• Implemented a search engine by tf-idf approach using Python language.

Project Link

#### Advanced Programming, Music Player

Spring 2019

• Implemented a basic music player using Java. Supporting features like editing songs in library, managing different playlists and watch friends activities.

#### Data Mining, Diabetes Prediction

Spring 2022

• Implemented and evaluated a simple classifier to determine if given data represent patient's diabetes based on its features, using Python language and XGBoost library. Project Link

#### Principles of Artificial Intelligence, Three Projects

Spring 2021

- Searching Algorithm: Implemented searching algorithms, including IDS, BBFS, and A\*, from scratch to find optimal paths using Python.
- Genetic Algorithm: Implemented a genetic algorithm to solve the Super Mario game using Python. No advanced libraries for genetic algorithms were used.
- NLP Comment Filtering: Implemented bigram and n-gram models for comment filtering using Python language with Numpy and Pandas libraries.

#### Operating System, MIT XV6 Operating System

Fall 2020

• Implemented scheduling and some system calls for XV6 OS using the C language. • Project Link

# TECHNICAL SKILLS

Programming Languages and Web Development: Python, Java, C, Kotlin, HTML, CSS,

JavaScript, XML

Hardware Design Languages: Arduino, Verilog, VHDL

Database Systems: MySQL, Oracle

Operating Systems: Windows, Linux(Ubuntu)

Miscellaneous Flask, Spring, Git, Docker, Jira, LATEX, REST API, Agile (Scrum/Kanban/XP)

# AWARDS AND HONORS

#### Nationwide University Entrance Exam

2018

• Achieved top 2% among all applicants of the Nationwide University Entrance Exam (known as Konkour) for BSc. in Mathematics and Engineering (Approximately 150000 applicants)

#### Management of Association of Philosophy and Religion

2022

• As the manager of Association of Philosophy and Religion at Amirkabir University of Technology, I was the winner of the award for the best cultural association in the field of Culture and Thought among all universities in the country.

# LANGUAGES

Perisan Native

English Fluent (TOEFL IBT anticipated completion date: 12/30/2023)

# REFERENCES

Faezeh Gohari: Lecturer at Amirkabir University of Technology, Tehran, Iran.

Email: faezeh.gohari@gmail.com

Ali Atghaei: Technical Manager of AI Department at Faraadid, Tehran, Iran.

Email: ali.atghaei@gmail.com

Amir Kalbasi: Assistant Professor at Amirkabir University of Technology, Tehran, Iran.

Email: kalbasi@aut.ac.ir