Matin Koohjani

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Research Interests

- Software Engineering
- Large Language Models
- Artificial Intelligence
- Performance Engineering

Education

Concordia University	Montreal, QC
M.Sc in Software Engineering	Summer 2024 - Present

Ferdowsi University of Mashhad	Mashhad, Iran
B.Sc. in Computer Engineering	Fall. 2018 - Winter. 2023
Total GPA: **3.49/4 (16.99/20)**	

Projects Highlight

2023 Lead Software Engineer in **Search Ads** @NeshanMaps

2022 Developed a **Category Classifier** for users' queries using logistic regression.

2022 Collaborated in developing A simple **Trend Analysis Service** of *NeshanMaps's Search Log.*

2022 Refactored some *legacy projects* in *NeshanMaps* with having **Maintainability**, **Performance** and **Scalability** in mind.

2021 Implemented a **fault-tolerant real-time processing pipeline** for different types of searchable data.

2021 Designed and implemented of some **cloud management** scripts in OpenStack.

2020 Implementation an elementary OS **task scheduler** in Linux using C.

2020 Implementation an interpreter for a made-up language using Antlr and Java.

2020 Creating a simple **backup management system** using Python's OS library.

Teaching & Mentoring Experience

Teaching Assistant, *CE Department, Ferdowsi University of Mashhad*

The Theory of Languages and Automata by *Dr. S. Abrishami & Dr. A. Savadi*	Fall 2020 - Fall 2021
Electrical and Electronic Circuits by *Dr. H. Pourreza*	Winter 2020
Discrete Mathematics by *Dr. A. Ghaemi Bafghi*	Fall 2019

Instructor, *Student Scientific Chapter, Ferdowsi University of Mashhad*

C Programming for Electrical Engineering Students.	Winter 2019
This course was part of a plan designed to teach EE students how to	Winter 2020
program a micro-controller. I was responsible to teach the fundamentals of C.	

Mentor, *Team Search, NeshanMaps*

Supporting the Mentees: *both technically and emotionally*	2021 - 2024
Agile Coach: *That's how we do things!*	
Growth Mindset: *Giving them the opportunities to grow.*	

Work Experience

Software Engineer at **NeshanMaps & Navigator**   Jul. 2020 - Apr. 2024 **(3.5 Years)**
NeshanMaps is the most popular map & navigator in Iran With over 20 million users. Working as a member of **search** team, I am doing my best to improve the quality of our backend services and development experience!

- Designed and Implemented **Search Ads** backend services in the most Agile way!
- Redesigned some of the old spaghetti codes to increase the performance, maintainability and availability of the system using micro-service architecture, 'clean code' principles and software testing.
- Designed and implemented both **batch & stream processing pipelines** to ensure that our data is valid and up-to-date. These pipelines reduced the operation cost significantly.
- Enhanced the performance of our **database insertion** process **by 10x**, using low-level solutions. The outcome was quite helpful for several teams.

Skills

Programming Languages	*Experienced* in Java, Python, SQL, JavaScript
Frameworks	*Experienced* in Spring Boot, FastAPI
Databases	*Experienced* in PostgreSQL, Elasticsearch, Redis
Messaging Tools	*Experienced* in RabbitMQ, Spring AMQP, Protobuffer & gRPC
DevOps Tools	*Experienced* in Kubernetes, GitLab CI/CD, *familiar* with Docker, AWS

Honors & Awards

Concordia **Merit** *Scholarship*	2024
Ferdowsi Academic Foundation **Scholarship**	2018
Ranked 1ˢᵗ *In Engineering Faculty,* Based on **National University Entrance Exam**	2018

Extracurricular Activities

ICCKE 2020, 2021 & NCAEA 2021   Oct. 2020, Dec. 2021
Executive Member
ICCKE and NCAEA are two annual conferences held by CS department.

Student Scientific Chapter   May. 2019 - May. 2021
Active Member
Planned and held many scientific and social events.

Language Proficiency

English   IELTS certificate with band score of **7.5** (Listening 8, Reading 8.5, Writing 6.5, Speaking 7)

References

Prof. Diego E. Costa
Assistant Professor in CSSE Department
Concordia University, QC
✉ diego.costa@concordia.ca

Prof. Saeed Abrishami   Prof. Hamidreza Pourreza
Assistant Professor in Computer Engineering   Professor in Computer Engineering
Ferdowsi University of Mashhad, Iran   Ferdowsi University of Mashhad, Iran
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