Soroosh Dini-Mortezapoor

In this PDF you will find two consecutive versions of the CV

- Short CV
- Extended CV with more details and information

Soroosh Dini-Mortezapoor

Date of birth: 01/02/1988

Nationality: Austrian

Gender: Male

Contact

Favoritenstraße 11, Room HE0452, 1040, Vienna, Austria **(Work)**

soroosh.mortezapoor@tuwien.ac.at

(+43) 69918230945

www.mortez.at

https://www.linkedin.com/in/smortezapoor/

Short CV

europass

ABOUT MYSELF

I am an engineer, entrepreneur, and researcher with a strong focus on solving complex problems and developing innovative, real-world solutions. I bring several years of experience from the European startup ecosystem, including serving as CTO of a fast-paced Austrian startup, where I built and led expert teams and collaborated closely with multinational B2B SaaS clients.

In late 2019, I began my PhD at TU Wien, concentrating on the intersection of Robotics, VR, and AR. This path has enabled me to integrate hands-on engineering and leadership experience with rigorous academic research and university-level teaching. Through this combination, I have developed a clear professional focus: designing robust systems, addressing technically challenging problems, and advancing the boundaries of science and engineering through applied research.

WORK EXPERIENCE

TU Wien Vienna, Austria

University Assistant

04/2022 - Current

VR & AR Research Unit, Institute of Visual Computing & Human-Centered Technology

FWF Project Assistant

30/04/2020 - 31/03/2022

Nativy Translations (GmbH) Vienna, Austria

Chief Technology Officer (CTO)

2016 - 2020

Lead Developer

2013 - 2016

Zigoora Tehran, Iran

Software Architect and Developer

2011 - 2012

Tehran, Iran

Freelance Developer

2008 - 2012

Sazeh Aliazh Alborz Ltd. Alborz Industrial Town, Iran

Part-time IT Support/Network Administrator/Software Developer

2006 - 2012

Iran University of Science and Technology Tehran, Iran

Programming Tutor

2010 - 2011

Iranian Organization for Development of Exceptional Talents Qazvin, Iran

Programming High-School Teacher

2009 - 2010

Alborz Pooladin 2000 Ltd. Alborz Industrial Town, Iran

IT Support/Network Administrator

2004 - 2010

Hanfekran IT Corp. Tehran, Iran

Software Engineering Intern

2008 - 2009

EDUCATION & TRAINING

30/09/2019 - 28/02/2026 Vienna, Austria

Dr. techn. (Ph.D.) - Candidate Vienna University of Technology (TU Wien)

Website: https://www.vr.tuwien.ac.at/people/soroosh-mortezapoor/ **Field(s) of study:** Robotics and Haptics in VR | **Thesis:** Robotics; Large-Scale Haptic Interactions in Virtual Reality, Based on a Mobile Robotic Platform

30/11/2012 - 30/11/2015 Vienna, Austria

Dipl.-Ing. (Master of Science) Vienna University of Technology (TU Wien)

Website: https://informatics.tuwien.ac.at/master/logic-and-computation/ **Field(s) of study:** Computational Intelligence (Logic and Computation) | **Thesis:** Optimizations and Improvements of Topographic Robotic Grasping using Machine Learning Approaches

30/11/2005 - 30/11/2010 Tehran, Iran

Bachelor of Science/Engineering Iran University of Science and Technology

Website: http://ce.iust.ac.ir/ **Field(s) of study:** Computer Engineering - Software | **Thesis:** A new priority-based agent communication control mechanism for multi-player games using Machinetta

LANGUAGE SKILLS

MOTHER TONGUE(S): Persian

OTHER LANGUAGE(S):

English

Listening C2 **Spoken production** C2

Reading C2 **Spoken interaction** C2

Writing C2

German

Listening B2 **Spoken production** B2

Reading B2 **Spoken interaction** B2

Writing B2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

NETWORKS AND MEMBERSHIPS

Memberships

Center for Geometry and Computational Design (GCD), TU Wien **2020 - present**

- Vienna University of Technology
- Roll: Researcher

VR and AR group, TU Wien **2019 - present**

- Vienna University of Technology

- Roll: Robotics Researcher/ University Assistant
- Supervisor: Prof. Dr. Hannes Kaufmann

Interactive Media Systems Research Group, TU Wien **2016 - 2019**

- Vienna University of Technology
- Roll: Robotics Researcher
- Supervisor: Prof. Dr. Hannes Kaufmann

Intelligent Automation Laboratory **2009 - 2011**

- Iran University of Science and Technology
- Roll: Research Assistant
- Supervisor: Prof. Dr. Peyman Kabiri

2nd Khawrazmi Robotic Competitions November **2009**

- Roll: Technical Committee (TC) member (Referee)
- Field: Search and Rescue

USARSim Developers Community **2010 - 2013**

- Roll: Developer on UT3, UDK
- Designed, developed and supported by NIST

Computer Engineering Scientific Association **2009 - 2011**

- School of Computer Engineering Iran University of Science and Technology
- Roll: Official Elected Member

Robotic Scientific Association**2007 - 2009**

- Iran University of Science and Technology
- Roll: Member

HONOURS AND AWARDS

Honours and awards

- Invited Demo at Laval Virtual - Action Origami Haptic End-effector - 2024 Laval, France
- Best project award from ACM Siggraph Emerging Technologies - 2023 LA, USA
- Standing amongst top 40 young Austrian companies with Nativy in 2016, 2017, 2018, 2019
- International Robocup Competitions - 2009 Graz, Austria
- International IranOpen Robocup Competitions - 2009 Qazvin, Iran
- International Robocup Competitions - 2008 Suzhou, China
- International IranOpen Robocup Competitions - 2008 Qazvin, Iran
- Awarded for standing among top 1% at the nation-wide university entrance exam

JOB-RELATED SKILLS

Job-related skills

- Academic and industrial R&D, rapid prototyping, and system-level design
- Automation, analytical problem-solving, and scientific/technical writing
- Technical communication, teaching, mentoring, and team leadership (Agile/SCRUM)
- Robotics and autonomous systems: ROS 1/2, Linux, Docker, control, navigation, simulation
- Programming: C++, C#, Python (.NET, rapid prototyping with LLMs)
- AI and XR: machine learning, reinforcement learning, VR/XR with Unity and Unreal
- Software engineering: software architecture, databases, cloud services, CI/testing

SOFT SKILLS

Communication and interpersonal skills

I developed strong teamwork and presentation skills early through participation in international RoboCup competitions, presenting technical work at seminars, symposia, and international events. As a development lead and later CTO, I regularly communicated complex technical concepts to diverse audiences, ranging from engineers and domain experts to non-technical stakeholders, strengthening my ability to translate complexity

into clear, actionable insights. As a PhD candidate and university assistant, teaching courses and presenting research within large interdisciplinary collaborations further refined my scientific communication, public speaking, and mentoring skills.

CERTIFICATIONS

Certifications

- Didactics - 2022, Wien, Österreich
    - Certified by Technische Universität Wien
    - Instructor: Dr. Elizabeth Weber
- IEEE-RAS Safety, Security and Rescue Robotics Summer School - 2012, Alanya, Turkey
    - Certified by IEEEE, IEEE-RAS, NIST, Robocup Rescue and Robolit
    - Subject: Safety, Security and Rescue Robotics - Machine Learning Practicals
- ROS RoboCup Rescue Summerschool - 2012, Graz, Austria
    - Certified by European Union, SiAt, Republic of Slovenia, Graz University of Technology and RoboCup Federation
    - Subject: Introduction to ROS (Robot Operating System)
- Data Mining and its Application in Industry and Technology - 2009, Tehran, Iran
    - Certified by Iran University of Science and Technology, Industrial Eng. and Computer Eng. Schools
    - Instructor: Prof. Dr. Gholamreza Nakhaeizadeh, former head of datamining department at Deimler and professor of KIT, Germany
- Application of Data Mining in CRM and Quality Management - 2009, Tehran, Iran
    - Certified by Iran University of Science and Technology, Industrial Eng. and Computer Eng. Schools
    - Instructor: Prof. Dr. Gholamreza Nakhaeizadeh
- Introduction to Data Mining - 2008, Isfahan, Iran
    - Certified by TUV Rheinland Academy
    - Instructor: Prof. Dr. Gholamreza Nakhaeizadeh

Extended CV

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Soroosh Dini-Mortezapoor

Work: Favoritenstraße 11, Room HE0452, 1040, Vienna, Austria

Email address: soroosh.mortezapoor@tuwien.ac.at **Phone:** (+43) 69918230945

Website: www.mortez.at

LinkedIn: https://www.linkedin.com/in/smortezapoor/

Gender: Male **Date of birth:** 01/02/1988 **Nationality:** Austrian

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In late 2019, I began my PhD at TU Wien, concentrating on the intersection of Robotics, VR, and AR. This path has enabled me to integrate hands-on engineering and leadership experience with rigorous academic research and university-level teaching. Through this combination, I have developed a clear professional focus: designing robust systems, addressing technically challenging problems, and advancing the boundaries of science and engineering through applied research.

WORK EXPERIENCE

TU Wien

City: Vienna | **Country:** Austria | **Name of unit or department:** VR & AR Group, Institute of Visual-Computing and Human-Centered Technology

[04/2022 - Current]

University Assistant

I work on multiple aspects of applying robotic systems in XR (VR, AR, and MR), combining research, teaching, and student supervision. My interdisciplinary research focuses on the design and construction of robotic systems, the enhancement of stationary and mobile robotic platforms, and multi-level programming ranging from low-level control to high-level system integration for XR applications.

At TU Wien, I teach courses on Virtual Reality in Game Engines (Unity and Unreal Engine 5), Multimodal Interfaces, and ROS (Robot Operating System). In addition, I actively supervise bachelor's and master's theses and project-based courses, guiding students through the design, implementation, and evaluation of XR and robotics systems.

Example supervised projects/thesis:

- Master Thesis: Optimize Mobile Robot Positioning using Reinforcement Learning (Nvidia Isaac)
- Bachelor Thesis: Safe Position Control of an Encountered-Type Haptic Display through Reinforcement Learning
- Master Thesis: A Human Walking Emulating Robot in an Interactive VR Environment
- User perception for robotic arm's IK & motion planning in immersed VR user close-proximity using Microsoft Azure Kinect

In addition, I actively contribute to the research community as a volunteer paper reviewer for international conferences and journals, including KAI, IEEE VR, and IEEE Transactions on Haptics (ToH).

[05/2020 - 04/2022]

FWF Project Assistant - Ph.D. Candidate

Working as a Ph.D. researcher on the SFB project "Robotics; Large-Scale Haptic Interactions in Virtual Reality, Based on a Mobile Robotic Platform". The project “SFB Advanced Computational Design” brings a large number of scientists together from various research groups from Vienna University of Technology (TU Wien), Graz University of Technology (TU Graz), and the University of Innsbruck. The main questions it is trying to answer are how to advance design tools and processes through multi- and interdisciplinary basic research in digital architecture, integrated building design, computer graphics and virtual reality, discrete and applied geometry, and computational mechanics.

Within this project, my primary focus involves working on the a mobile ROS-based robotic platform, along with advanced sensors and devices used in Virtual, Augmented, and Mixed Reality.

Nativy Translations (GmbH)

City: Vienna | **Country:** Austria

[2016 - 2020] **Chief Technology Officer (CTO)**

Nativy was a professional, high-quality translation and content platform that automated the entire process of human-translating content-sensitive documents as one of the leaders in its domain. While its primary clients included multinational and multilingual companies such as Siemens, RWE, REWE, Western Union, Heineken, and Do&Co, private individuals also benefited from the platform’s ease of use to have their documents translated with just a few clicks. Additionally, Nativy provided its partners, including WPML, the capability to offer translation services directly within their CMSs, portals, and websites, eliminating the need for file imports and exports through a ready-to-use API set.

My role in Nativy included but not limited to:

- Head of the software development unit
- Building and training an offshore software development team
- Creating and training an on-site software development team
- Redesigning the platform (Architecture, Technology, etc.)
- Designing and implementing algorithms and procedures such as
    - Expert retrieval systems
    - High-performance resource scheduling systems
    - Text processing and CAT (Computer-Aided Translation) tools
- Supervising and implementing Software Development Lifecycle (SDLC) processes and development methodologies (mainly SCRUM)
- Supervising Continuous Integration (CI) and Continuous Delivery (CD) implementation using Microsoft Azure Pipelines
- Supervising the software testing team (Manual testing, and automated unit/API/Functional/E2E testing)

Nativy employed a wide variety of technologies, including ASP.NET WebForms/MVC, Java, Apache Solr, Apche Lucene, Microsoft Azure Services, Amazon Web Services (AWS), etc.

[2013 - 2016] **Lead Developer**

During this time, I refactored the code base, redesigned the database, and made fundamental changes in UI/UX of the platform.

Some technologies and platforms we introduced into the system included but not limited to:

- Switching to the latest .NET Framework
- Moving the majority of resources to the cloud (Microsoft Azure, Amazon AWS, ...)
- Employing Apache Lucene, Apache Tika, etc. for different purposes in the system

- Introducing and utilizing Linq2SQL ORM
- Introducing new workflows for the ordering process in the system
- Expanding Nativy Connect API, an API set for partner companies
- Switching to AJAX-based pages designed using native HTML/CSS/JS from Telerik ASP.NET Components

Zigoora

City: Tehran | **Country:** Iran

[2011 - 2012] **Software Architect and Developer**

A Canadian-Iranian startup. A crowdsourcing translation platform capable of providing high-quality translations supported by a machine translation engine, and its human members. Despite its very complex concept and workflow, Zigoora was developed using ASP.NET and jQuery.

City: Tehran | **Country:** Iran

[2008 - 2012] **Freelance Developer**

I did various projects with very different sizes. The platforms and technologies I used were mostly:

- .NET Windows Form (C++.NET and C#.NET)
- ASP.NET
- DotNetNuke
- MS Office Access
- MS SQL Server
- ...

Sazeh Aliazh Alborz Ltd.

City: Alborz Industrial Town | **Country:** Iran

[2006 - 2012] **Part-time IT Support/Network Administrator/Software Developer**

A medium-sized company that manufactures steel spare parts for various cars, located in Alborz Industrial Town in Qazvin, Iran. In addition to setting up and supporting their Windows-based network, I spent time developing mini-applications to automate workflows at the company.

Iran University of Science and Technology

City: Tehran | **Country:** Iran

[2010 - 2011] **Programming Tutor**

I taught Microsoft C#.NET in two levels, beginner and advanced. I had two classes, each around 10 people from undergraduate students to Ph.D. students from Iran University of Science and Technology.

Iranian Organization for Development of Exceptional Talents

City: Qazvin | **Country:** Iran

[2009 - 2010] **Teacher (Programming)**

I taught middle-school and high-school children computer programming, as a complementary part to their primary curriculum.

Alborz Pooladin 2000 Ltd.

City: Alborz Industrial Town | **Country:** Iran

[2004 - 2010] **IT Support/Network Administrator**

Alborz Pooladin 2000 Ltd was a mid-sized company back then that manufactured steel spare parts for various car manufacturers in Iran. I set up and maintained their Windows-based network, and I technically maintained and supported their IT infrastructure.

Hanfekran IT Corp.

City: Tehran | **Country:** Iran

[2008 - 2009] **Software Engineering Intern**

I was appointed to different projects to learn how the software development processes and methodologies look like but mainly focused on extending a cloud-based time attendance software for enterprises. During this time, I became familiar with the fundamentals of teamwork and improved my development skills drastically.

EDUCATION & TRAINING

[10/2019 - 03/2026] **Dr. techn. (Ph.D.) - Candidate**

Vienna University of Technology (TU Wien)
https://www.vr.tuwien.ac.at/people/soroosh-mortezapoor/

City: Vienna | **Country:** Austria | **Field(s) of study:** Robotics and Haptics in VR | **Thesis:** Robotics; Large-Scale Haptic Interactions in Virtual Reality, Based on a Mobile Robotic Platform

Ph.D. candidate at the Institute of Visual Computing and Human-Centered Technology. A member of the prestigious project “SFB Advanced Computational Design” of The Center for Geometry and Computational Design, TU Wien, Vienna, Austria.

Under supervision of Univ.Prof. Mag.rer.nat. Dr.techn. **Hannes Kaufmann**

[2013 - 2016] **Dipl.-Ing. (Master of Science)**

Vienna University of Technology (TU Wien)
https://informatics.tuwien.ac.at/master/logic-and-computation/

City: Vienna | **Country:** Austria | **Field(s) of study:** Computational Intelligence (Logic and Computation) | **Thesis:** Optimizations and Improvements of Topographic Robotic Grasping using Machine Learning Approaches

Dipl.-Ing. (equivalent to Master of Science in German-speaking countries) in Logic and Computation (Formerly known as Computational Intelligence) with a focus on Artificial Intelligence

Under the supervision of Ao.Univ.Prof. Dipl.-Ing. Dr.techn. **Markus Vincze** at Automation and Control Institute (ACIN), TU Wien

[2006 - 2011] **Bachelor of Science/Engineering**

Iran University of Science and Technology http://ce.iust.ac.ir/

City: Tehran | **Country:** Iran | **Field(s) of study:** Computer Engineering - Software | **Thesis:** A new priority-based agent communication control mechanism for multi-player games using Machinetta

Major: Software Engineering

Under the supervision of Prof. Dr. **Behrouz Minaie**

[1998 - 2006] **High school diploma**

Iranian National Organization for Development of Exceptional Talents
Mathematics/Physics

LANGUAGE SKILLS

Mother tongue(s): Persian

Other language(s):

English

LISTENING: C2 **READING:** C2 **WRITING:** C2

SPOKEN PRODUCTION: C2 **SPOKEN INTERACTION:** C2

German

LISTENING: B2 **READING:** B2 **WRITING:** B2

SPOKEN PRODUCTION: B2 **SPOKEN INTERACTION:** B2

NETWORKS AND MEMBERSHIPS

Memberships

Center for Geometry and Computational Design (GCD), TU Wien **2020 - present**

- Vienna University of Technology
- Roll: Researcher

VR and AR group, TU Wien **2019 - present**

- Vienna University of Technology
- Roll: Robotics Researcher/ University Assistant
- Supervisor: Prof. Dr. Hannes Kaufmann

Interactive Media Systems Research Group, TU Wien **2016 - 2019**

- Vienna University of Technology
- Roll: Robotics Researcher
- Supervisor: Prof. Dr. Hannes Kaufmann

Intelligent Automation Laboratory **2009 - 2011**

- Iran University of Science and Technology
- Roll: Research Assistant
- Supervisor: Prof. Dr. Peyman Kabiri

2nd Khawrazmi Robotic Competitions November **2009**

- Roll: Technical Committee (TC) member (Referee)
- Field: Search and Rescue

USARSim Developers Community **2010 - 2013**

- Roll: Developer on UT3, UDK
- Designed, developed and supported by NIST

Computer Engineering Scientific Association **2009 - 2011**

- School of Computer Engineering Iran University of Science and Technology
- Roll: Official Elected Member

Robotic Scientific Association**2007 - 2009**

- Iran University of Science and Technology
- Roll: Member

PROJECTS

[2025 - 2026] **Mobile Robot Idle Positioning in Large-Scale VR Encountered-Type Haptics Using Deep Reinforcement Learning**

Supervised a Master's thesis proposing a Deep Reinforcement Learning-based idle-positioning strategy for a mobile ETHD operating continuously in a shared human-robot workspace with an unaware VR user. The work introduced a learning-based policy to balance responsiveness and safety, supported by a dataset of motion-captured real human trajectories collected and publicly released. The implementation involved ROS 1 and 2, Nvidia Isaac Sim & Lab, and Skrl.

Link: https://doi.org/10.34726/hss.2025.126051

[03/2019 - Current] **CoboDeck: A Large-Scale Haptic VR System Using a Collaborative Mobile Robot**

CoboDeck is a fully autonomous, safe, large-scale VR encountered-type haptic system enabling free walking and prop-based interaction. It combines an omnidirectional mobile robot with a collaborative robotic arm to present physical props aligned with virtual objects at any point in the workspace. The system integrates fiducial and motion tracking, user perception, low-level control and navigation, and high-level behavior orchestration. It supports multi-user scenarios with robot sharing and applies deep reinforcement learning to optimize robot positioning in shared human–robot environments. This project has led to many publications in prestigious conferences and journals.

[01/2021 - 04/2021] **Photogrammabot: Autonomous Indoor 3D Reconstruction Robot**

Photogrammabot is a custom ROS-based autonomous robotic system designed and built to automate indoor photogrammetry. Based on a TurtleBot 2 platform with a Raspberry Pi 4B controller, it integrates a DSLR camera mounted on a 2-DOF turret to capture large numbers of spatially aligned images without human intervention. The robot autonomously explores unknown indoor environments, performs mapping, and acquires consistent, high-coverage image datasets over multi-hour missions. Developed and deployed for Illusion Walk KG, Berlin.

[2018 - 2018] **Autonomous Smart Greenhouse Control System**

Designed and implemented a fully autonomous smart greenhouse using a Raspberry Pi 3B+ with many sensors, capable of monitoring environmental conditions and making real-time control decisions. The system manages lighting, irrigation, fertilization, temperature, humidity, and airflow without human intervention. A web-based interface enables remote monitoring, data visualization, and secure manual control from any location.

HONOURS AND AWARDS

Honours and awards

- Invited Demonstration, *Laval Virtual* (2024, Laval, France)
  - *Action Origami Haptic End-Effector* : an origami-inspired haptic device capable of simulating dynamic material elasticity.
- Best Project Award, *ACM SIGGRAPH Emerging Technologies* (2023, Los Angeles, USA)
  - *Action Origami Haptic End-Effector* : an origami-inspired haptic device for dynamic elasticity simulation.
- Top 40 Young Austrian Companies with *Nativy* (2016–2019, Vienna, Austria)
  - Recognized among Austria's top 40 young companies for four consecutive years.
- International RoboCup Competition, Urban Search and Rescue League (2009, Graz, Austria)
  - Qualified and competed as a team; achieved 6th place.
- International IranOpen RoboCup Competition, Urban Search and Rescue League

(2009, Qazvin, Iran)
    - Qualified and competed as a team; achieved 1st prize.
- International RoboCup Competition, Urban Search and Rescue League (2008, Suzhou, China)
    - Qualified and competed as a team.
- International IranOpen RoboCup Competition (2008, Qazvin, Iran)
    - Awarded for ranking among the top 1% in the nationwide university entrance examination.

JOB-RELATED SKILLS

Job-related skills

Core Competencies

- Research and development in academic and industrial contexts
- Rapid prototyping and proof-of-concept development
- Critical, analytical, and creative problem-solving
- Automation of workflows, experiments, and system pipelines
- Scientific, technical, and peer-reviewed writing (reports, proposals, papers, documentation)
- System-level thinking across software, hardware, and human-in-the-loop systems

Scientific Communication and Teaching

- Excellent presentation skills for technical and non-technical audiences
- Clear communication of complex scientific concepts to engineers, managers, and stakeholders
- Teaching and instructional capability in applied research, machine learning, robotics, and XR-related topics
- Mentoring and onboarding of junior researchers and engineers
- Experience working in agile, iterative research and development cycles

Leadership and Collaboration

- Team building and technical mentorship
- Team leadership in interdisciplinary and multicultural environments
- Agile development methodologies, with a strong focus on SCRUM
- Experience across all stages of startup development, from early prototyping to mature systems

Robotics and Autonomous Systems

- Linux-based development environments (primarily Ubuntu)
- Docker and system dockerization
- Programming languages: C#, C++, Python (Also fast prototyping using LLMs)
- Robot Operating System (ROS 1 and ROS 2)
- Robot hardware integration and enhancement
- Robot simulation and digital twins (Isaac Sim, Gazebo, Unity, Unreal Engine)
- Robot control stacks, including localization, navigation, exploration, and manipulation
- Microcontroller programming and embedded systems
- Tracking and localization systems (fiducial marker-based systems, optical motion capture such as Qualisys)
- Experience with various robots, including Boston Dynamic Spot, Robotnik Kairos, Stäubli TX2-60, AgileX Scout

Artificial Intelligence and Intelligent Systems

- Good understanding of logic-based AI, including knowledge-based systems and Answer Set Programming
- Good understanding and hands-on experience with machine learning methods, including classification, clustering, similarity modeling, and feature-based image

processing

- Experience with Reinforcement Learning for robot decision-making
- Expert and information retrieval systems
- Human-computer interaction and multimodal interfaces

Virtual Reality and XR Technologies

- Unity development for VR and AR applications
- Unreal Engine 5 development for VR systems
- Networking and multi-user architectures in game engines (Unity, Unreal Engine)
- Hands-on experience with VR head-mounted displays (VIVE, Quest, Varjo, Rift)

Software Engineering and Systems

- .NET ecosystem (.NET developer for many years)
- Software design patterns and architecture
- Relational and NoSQL databases
- Cloud-based solutions and distributed services
- Automated testing frameworks and continuous integration practices

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

I encountered my first significant challenge as a member of a professional team during my undergraduate studies when I participated in Robocup competitions. Working with a fast-paced, young, and enthusiastic team, we competed against top competitors at international RoboCup events. This experience honed my teamwork skills and provided me with excellent presentation abilities, as I delivered presentations at seminars, international competitions, symposiums, and summer schools.

Later, as a development lead at Nativy Translations, I faced the task of communicating with various individuals, including technical experts, domain specialists within my team, partner corporates, and individuals with limited IT knowledge. Initially, it was challenging to discuss technical topics with those who lacked experience in the field. However, I learned to appreciate this challenge as it allowed me to develop the skill of conveying complex concepts in simple terms that everyone could grasp. I came to realize that effective communication is a vital trait for a competent CTO.

Coming back to the university as a Ph.D. candidate and a university assistant, with the responsibility of teaching courses and presenting numerous publications, provided me with valuable opportunities to enhance my communication and presentation skills. Moreover, being part of a remarkable project that involved over 80 esteemed scientists from various universities and fields further elevated my abilities in this regard. In my opinion, this experience has taken my communication skills to a new level.

CERTIFICATIONS

Certifications

- Didactics - 2022, Wien, Österreich
    - Certified by Technische Universität Wien
    - Instructor: Dr. Elizabeth Weber
- IEEE-RAS Safety, Security and Rescue Robotics Summer School - 2012, Alanya, Turkey
    - Certified by IEEEE, IEEE-RAS, NIST, Robocup Rescue and Robolit
    - Subject: Safety, Security and Rescue Robotics - Machine Learning Practicals
- ROS RoboCup Rescue Summerschool - 2012, Graz, Austria
    - Certified by European Union, SiAt, Republic of Slovenia, Graz University of Technology and RoboCup Federation
    - Subject: Introduction to ROS (Robot Operating System)
- Data Mining and its Application in Industry and Technology - 2009, Tehran, Iran

- Certified by Iran University of Science and Technology, Industrial Eng. and Computer Eng. Schools
- Instructor: Prof. Dr. Gholamreza Nakhaeizadeh, former head of datamining department at Deimler and professor of KIT, Germany

- Application of Data Mining in CRM and Quality Management - 2009, Tehran, Iran
  - Certified by Iran University of Science and Technology, Industrial Eng. and Computer Eng. Schools
  - Instructor: Prof. Dr. Gholamreza Nakhaeizadeh
- Introduction to Data Mining - 2008, Isfahan, Iran
  - Certified by TUV Rheinland Academy
  - Instructor: Prof. Dr. Gholamreza Nakhaeizadeh

PUBLICATIONS

[2025] **Safety for mobile encountered-type haptic devices in large-scale virtual reality**

Journal Name: Journal of Frontiers in VR, Haptic | **Publisher:** Frontiers

[2025] **HeXA: Haptic-enhanced eXtended reality framework for material-informed Architecturaldesign**

Journal Name: Journal of Building Engineering | **Publisher:** Elsevier

[2024] **Stiffness Simulation with Haptic Feedback Using Robotic Gripper and Paper Origamias End-Effector**

Journal Name: (IEEE VR) IEEE Conference on Virtual Reality and 3D User Interfaces (VRW) 2024 | **Publisher:** IEEE

[2023] **Action-origami inspired haptic devices for virtual reality.**

Write here the description...

Journal Name: SIGGRAPH '23: ACM SIGGRAPH 2023 Emerging Technologies | **Publisher:** ACM

[2023] **CoboDeck: A Large-Scale Haptic VR System Using a Collaborative Mobile Robot**

Journal Name: (IEEE VR) IEEE Conference Virtual Reality and 3D User Interfaces (VR), pp. 297-307. IEEE, 2023. | **Publisher:** IEEE

[2022] **Photogrammabot: An Autonomous ROS-Based Mobile Photography Robot for Precise3D Reconstruction and Mapping of Large Indoor Spaces for Mixed Reality**

Journal Name: (IEEE VR) IEEE Conference on Virtual Reality and 3D User Interfaces (VRW), pp. 101-107. IEEE, 2022. | **Publisher:** IEEE