# M. Saeed Mafipour

Dr. -Ing. Technical University of Munich (TUM)

FULL-STACK DEVELOPER · SOFTWARE DEVELOPER · AI DEVELOPER

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Munich, Germany

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### ${f Education}$ $\_$



DrIng. Technical University of Munich (TUM)	Munich, Germany
Ph.D. in Engineering	2020-2024
Research focus on software development, AI, and digitalization in construction.	
M.Sc. University of Tehran	Tehran, Iran
M.Sc. in Structural Engineering	2017-2020
B.Sc. University of Zanjan	Zanjan, Iran

### Job Experiences $\_$

B.Sc. IN CONSTRUCTION ENGINEERING

Fullstack developer Developed fullstack applications for remotely controlling machines and robots on construction sites. Utilized LiDAR and camera sensors, AI for visual data interpretation, and automation for navigation and manipulation tasks. Worked with React, TypeScript, and 3D deep learning technologies.

Aiina Robotics, Germany

2013-2017

Research Associate Developed software for model reconstruction, digital twinning, and point cloud processing. Created a model generator (plugin) for Autodesk to produce the 3D model of 2020-2024 infrastructure. Additionally, served as a lecturer for the engineering databases (SQL and NoSQL) master course at TUM.

TUM, Germany

Frontend Developer Developed commercial web applications for various clients using HTML, CSS, 2017-2020 JavaScript, TypeScript, and React.js. Contributed partially to backend development with Node.js and Express.js.

Webdaran, Iran

#### Job Interests\_

- · Developing full-stack applications that integrate AI to enhance functionality, automation, and decision-making.
- Machine/Deep learning with regular and irregular data structures such as images, texts, point clouds, and meshes.
- Creating digital representations of physical systems for simulation, optimization, and behavioral prediction.
- · Data Interpretation Analysis Extracting insights from visual and non-visual data using Al-driven techniques.

## **Technologies**

**Programming** JavaScript, TypeScript, Python, C#, C++, SQL, Java, LaTex, MATLAB.

**Frontend** React, Next.js, Tailwind CSS, TypeScript, React Query, Shadon, Sass, Bootstrap, HTML, CSS. **Backend** Node.js, Express, Prisma, Supabase, MongoDB, PostgreSQL, Rest API, Sequelize, Mongoose.

**Tools & APIs** Git, Github, Docker, Webpack, OpenAl API, Google API, ESLint, NextAuth, Prettier, Leaflet, Stripe API. Tensorflow, Pytorch, Keras, Scikit-Learn, Pandas, Numpy, 3D Deep Learning, Transformers, LLM. **AI & Machine Learning** 

### **Certificates**

2024	DrIng./Ph.D. degree in Engineering and Design	Awarded by TUM
2023	AI - Tensorflow Developer Certificate with the ID: 76696257	Awarded by Google

### Honors & Awards \_\_\_

2022	Ranked 3 <sup>rd</sup> in CV4AEC (Challenge on Computer Vision in the Built Environment).	Remote event
2021	Ranked 1st in CV4AEC (Challenge on Computer Vision in the Built Environment).	Remote event

### Languages \_\_\_\_\_

English (C1-TOEFL IBT: 103/120), German (B1-B2)