

Davoud Aftabi

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📍 Bochum, Germany

🌐 LinkedIn



📄 Curriculum Vitae

Civil Engineering MSc candidate in Subsurface Engineering at Ruhr University Bochum, specializing in geotechnical engineering, numerical modelling, and subsurface systems for infrastructure and underground construction. Background in Rock Mechanics and Mining Engineering, with experience in slope stability, technical reporting, tunnel-related site support, and field-based engineering evaluation. Proficient in PLAXIS 2D/3D, GGU, AutoCAD, Datamine, and Python for geotechnical and analytical work. Strong interest in geotechnical calculations, ground-related engineering assessments, and practical applications in geotechnics and foundation engineering.

🎓 Education

M.Sc. in Civil Engineering, Subsurface Engineering, Ruhr University Bochum	10.2023 – Present Bochum, Germany
• The Master's program "Subsurface Engineering" is an English-taught course focusing on Civil Engineering, Geosciences, and Underground Construction.	
M.Sc. in Mining Engineering – Rock Mechanics, Isfahan University of Technology	09.2014 – 06.2017 Isfahan, Iran
• Master's Thesis: Development of a 3D Predictive Model to Estimate the Rock Groutability Index	
B.Sc. in Mining Engineering – Exploitation, Shahid Bahonar University of Kerman	09.2010 – 09.2014 Kerman, Iran
• Bachelor's Thesis: Comparison of the Kuz-Ram Model Results and Visual Analysis of Exploitation Processes in the Sarcheshmeh Copper Mine	

🧰 Employment

Mining Expert, Kavoshgaran Consulting Engineers	04.2023 – 12.2023 Tehran, Iran
• Preparing mine planning and extraction design layouts based on geological and operational data using Datamine	
• Conducting technical evaluation of mining projects and supporting feasibility assessments	
• Assisting in the preparation of technical documentation and engineering reports	
• Coordinating with project stakeholders regarding operational planning and performance	
• Conducting regular site visits to various iron mines within the complex	
Technical Staff in Mining, Pars Sivand Sand Mine	06.2021 – 04.2023 Marvdasht, Iran
• Supervising safe and efficient mineral extraction in accordance with approved mining plans	
• Monitoring daily site operations and ensuring compliance with safety and technical standards	
• Preparing operational reports and production documentation	

- Supporting the implementation of extraction sequencing and slope stability measures

Rock Mechanics Expert, *Rail Gostar Co.*

10.2018 – 11.2019

Sarvestan, Iran

- Preparing technical documents, invoices, and contractual documentation for infrastructure projects
- Assisting in tunnel mapping based on geological field observations and preparing mapping drawings using AutoCAD
- Conducting daily site visits to monitor work progress and support coordination between the site and the technical office
- Contributing to technical office operations for railway-related construction activities

Tunnel Construction and Site Coordination Engineer, *Rail Gostar Co.*

02.2018 – 10.2018

Sarvestan, Iran

- Supporting tunnel construction activities, including drilling supervision, monitoring, and site coordination
- Assisting in workforce and operational management within underground construction sites
- Monitoring drilling progress and documenting excavation performance
- Contributing to on-site technical reporting and communication with engineering teams

Technical Staff in Mining, *Sand Mine in the Davan Mountains*

03.2016 – 03.2017

Kazeroon, Iran

- Supervising mineral extraction activities in accordance with approved exploitation plans
- Monitoring slope conditions and operational safety
- Preparing technical and production reports
- Supporting the implementation of safe working procedures in open-pit mining operations

Language Skills

Deutsch

B2 (currently attending a course)

English

C1

Persian

Native

Computer Skills

Geotechnical Software

Plaxis 2D & 3D

GGU, GeoSlice

Design & Drafting Tools

AutoCAD 2D

Analysis & Programming Tools

Microsoft Office, Python, LaTeX

Research Interests

- Geotechnics and Rock Mechanics for Infrastructure Projects, from Planning to Execution
- Numerical Modeling in Soil–Structure Interaction and Tunnel Construction (e.g., FEM Analyses)
- Strong Motivation to Combine Analytical Geotechnical Design with Hands-On Construction and Field Applications

Publications

Lotfi, R.; Hosseini, M.; **Aftabi, D.**; Baghbanan, A.; Xu, G. Optimization of Pump Schedule in Acid Fracturing through Unified Fracturing Design. *Energies* 2021, 14, 8185 (PDF ^[PDF]).

01.12.2020

Alireza Baghbanan, Keyvan Ebneali Heydari, **Davoud Aftabi**; Three-Dimensional Mortar Spread in Inclined Joints / Conference: 7th Iranian Rock Mechanics Conference (IRMC7), Tehran, Iran, (PDF ^[PDF])