

Geomechanics Specialist

Expertise	Rock Mechanics, Mining, Geotechnical Engineering, Machine Learning
Education	Ph.D., Geological Engineering, 2025 The University of British Columbia, Vancouver, BC, Canada M.Sc., Geotechnical Engineering, 2017 B.Sc., Civil Engineering, 2014 Sharif University of Technology, Tehran, Iran
Honors	Canada Graduate Scholarship for Doctoral Program – NSERC CGS-D (3 YRS) (2021) UBC 4-Year Doctoral Fellowship Award (2019) UBC GoldCorp #DisruptMining Award (2020)
Professional Experience	
2025 – Present	ITASCA Minneapolis Geomechanics Specialist
2022 – 2025	WSP Canada, Mine Stability West, Vancouver, BC Mining Geotechnical Specialist
2019 – 2025	The University of British Columbia, Geological Engineering, Vancouver, BC Doctoral Researcher
2017 – 2019	Farnofan Ltd., Tehran Junior Civil/Geotechnical Engineer

Project Experience

Underground mine stability: Conducted rock mass characterization and stability assessments for underground mines. Developed a hybrid tool that integrated various mine datasets — including geotechnical data, ground support conditions, development and production schedules, convergence data, and cave load estimates — to forecast excavation collapse risk and estimate the associated financial impacts.

Wet muck spill (mud rush) hazard assessment: Lead mud rush risk review studies for sub-level and block cave mines. Designed and lead research projects focused on developing machine learning-based forecasting tools to predict wet muck spill event susceptibility and severity. Developed an ore haulage and blending simulator tool to forecast wet muck related ore-flow challenges and operational limitations.

Open Pit Stability: Conducted geotechnical data review, rock mass characterization, bench conformance analysis, kinematic analysis, and numerical modeling (back analysis and predictive modeling) as part of comprehensive open pit stability assessments projects.