Michael M. Yetisir

An Itasca International Company

Geomechanics Software Engineer

Expertise	Rock Mechanics, Numerical Modeling, Software
Education	MASc (Computational Geomechanics), 2016 University of Waterloo, Waterloo, Ontario, Canada
	BASc (Geological Engineering), 2014 University of Waterloo, Waterloo, Ontario, Canada

Professional Experience

2020 – Present	*Itasca Consulting Group, Inc., Minneapolis, Minnesota* *Geomechanics Software Engineer*
2017 – 2020	*Golder Associates, Mine Stability, Portland, Oregon* *Rock Mechanics Engineer*

Project Experience

Software:

Developed a Python framework to decrease model build time, verify model integrity, and ensure reproducibility by integrating git version control and substantial automation into modeling workflows, decreasing model build time and errors by more than 50%.

Designed and implemented a Python application that automated routine hydrogeological monitoring and reporting of over 1000 piezometers on site at Bingham Canyon Mine.

Designed and implemented a Python library based on VTK and SQL to help develop, validate, and visualize 3D computational models for an in-house geomechanics solver including a prototyped job scheduler to manage model runs on an HPC cluster.

Consulting:

Provide detailed geotechnical engineering designs to mining clients and develop large-scale 3D computational models for open pit and underground mines to help predict deformation and stability of proposed designs.

Bingham Canyon Mine: Built and calibrated a pit-scale model of Bingham Canyon Mine's South Wall to back-analyze a complex slope instability mechanism and developed a predictive model to identify optimized life of mine parameters.