

Senior Geomechanics Engineer

Expertise	Senior Geomechanics Engineer
Education	M.S. (Geotechnical Engineering), 2011 Northwestern University, Chicago, Illinois M.S. (Mining Engineering), 2007 The Pennsylvania State University, State College, Pennsylvania
Professional Affiliations	Member: American Society of Civil Engineers (ASCE), Society for Mining, Metallurgy and Exploration (SME)
Honors	Walter P. Murphy Fellowship, Northwestern University (2008-2009) Anne C. Wilson Graduate Research Award, The Pennsylvania State University (2005)
Professional Experience	
2015 – Present	ITASCA Minneapolis Senior Geomechanics Engineer
2011 – 2015	Geomechanics Engineer
2008 – 2011	Northwestern University, Dept. of Civil & Environmental Engineering Research Assistant, Geotechnical Engineering
2004 – 2007	The Pennsylvania State University, Department of EGEE Graduate Assistant, Mining Engineering

Project Experience

Civil Projects: Sinkhole slope stability evaluation using *FLAC*. Investigation on deformations of the corrugated metal arch induced by foundation settlement using *FLAC*. Assessment of settlements caused by excavation of tunnels and consolidation settlements over time using *FLAC*. Evaluated earth pressure on cantilever sheet-pile walls with retained slopes. Conducted a finite-element parametric study using *PLAXIS* for a range of conditions encountered in practice and provided guidance regarding the selection of appropriate design pressure. Performed laboratory tests on Chicago stiff clay to investigate small-strain response and conducted *PLAXIS* simulations using a hypoplastic model.

Mining Projects: Mine-void detection using geophysical methods. Experimental design, field surveys and seismic data analysis using *MATLAB*. Database development using *Access*. Wave velocities measurements on rock and coal samples. Numerical analysis of longwall mining.

Software Development: Development, support, training for *FLAC*.