

## **Mining Engineering**

<b><i>Expertise</i></b>	Mining Engineering, Rock and Soil Mechanics, Numerical Modeling
<b><i>Education</i></b>	Ph.D. Candidate, Mining Engineering M.Sc. (Mining Engineering), 1996 B.Sc. (Mining Engineering), 1993 Queen's University, Kingston, Ontario, Canada
<b><i>Honors</i></b>	Ontario Graduate Scholarship in Science & Technology/OGSST (2005-2006) R. Samuel McLaughlin Fellowship (2003-2005) Mel Williamson Foundation Scholarship (2002-2003) Teaching Assistant Award of Excellence, Engineering Society, Queen's University (2002)
<b><i>Professional Experience</i></b>	
2006 – Present	<i>Itasca Consulting Group, Inc., Minneapolis, Minnesota Mining Engineer</i>
2001 – 2006	<i>Queen's University, Kingston, Ontario, Canada Teaching/Research Assistant</i>
1994 – 2006	<i>Locksley Innovations Corporation, Kingston, Ontario, Canada Managing Director</i>

## ***Project Experience***

*Modeling of Underground Environments:* Conceptualized and coded disturbed-cave flow models with Particle Flow Code (PFC); improved model accuracy and run efficiencies 3-8 times by analyzing modeling approaches and adopting new algorithms; modeled caved waste and blasted ore flow in sublevel cave mines; conducted time-value economic evaluations of mine designs; studied the use of recycled and waste glass as a co-binder for consolidated mine backfill from both technical and socioeconomic perspectives.

*Education in Mining:* Developed two technical multimedia CD-ROMs for mine education and training for MASHA (Mines and Aggregates Safety and Health Association) and the CIM (Canadian Institute of Mining Metallurgy and Petroleum).