

## Geological Engineering

**Expertise** Geological Engineering, Slope and Tunnel Stability, Numerical Modeling

**Education** M. Sc. Geological Engineering, 2001  
Universidad Politécnica de Catalunya, University of Barcelona, Spain.

### Professional Experience

2010 – Present	Itasca S.A., Santiago, Chile Geomechanical Engineer
2010	CYE Consult SPRL, Dominican Republic Tunnel Engineer
2008 – 2009	Freelance, Spain Freelance Consultant
2007 – 2008	FCC, Spain Tunnel Engineer
2006 – 2007	CONSULTEC SL, Mexico Geotechnical Engineer
2005 – 2006	SITE SA, Spain Production Engineer
2004 – 2005	AUDING SA, Spain Engineer
2002 – 2004	EUROGEOTÉCNICA SA, Spain Geotechnical Engineer
2001 – 2002	IGPS, Spain Geotechnical Engineer
2000	MOP, El Salvador Internship

### Project Experience

#### *Slope Stability and Underground Excavations:*

Over 10 years of professional experience in geomechanical analysis of open-pit mine slopes and underground excavations. Advanced user of numerical modeling codes such as FLAC3D, 3DEC, FLAC, and UDEC. Stability analyses performed for major mining operations including Chuquicamata and Escondida (Chile), Toquepala (Peru), Goiás and Cuiabá (Brazil), Jwaneng and Orapa (Botswana), Sishen (South Africa), Anfisa (Russia), and Miduk (Iran).

*Design of tunnels (excavation and support)* in Spain and Mexico using numerical modeling tools. Monitoring of geological and geotechnical information for tunnel projects in Spain and the Dominican Republic. Evaluation of rock mass properties, tunnel convergence, and design of primary and secondary support systems

*Geology:* Monitoring and technical supervision of exploration campaigns in the field, including geological drilling, oriented (structural) drilling, and geophysical drilling. Structural mapping and data acquisition in the field. Review, integration, and management of geological and structural databases, including geological and/or geotechnical block models, 3D structural models, and structural domain definition.

*Civil Engineering:* Inspection, supervision and quality control of micropiles, micropile umbrellas, piles, anchors, bolts, cement injections.