

## **Software Development**

**Expertise** Structural Engineering, Computational Mechanics, Numerical Modeling

**Education** Ph.D. (Structural Engineering), 1997  
M.Sc. (Structural Engineering), 1994  
University of Colorado at Boulder  
B.Sc. (Engineering), 1990, University of Belgrade, Yugoslavia

### **Professional Experience**

1998 — Present *Itasca Consulting Group, Inc., Minneapolis, Minnesota*  
*Software Engineer*

1991 — 1998 *University of Colorado at Boulder*  
*Teaching Assistant/Research Assistant/Research Associate*

### **Project Experience**

*Software Development* — Development of a post-processor for a finite-element program using GKS; development of programs with graphical interfaces for instructional purposes (foundation analysis, Mohr circle); development of a probabilistic-based code for the analysis of a truss with softening material behavior. FORTRAN and C/C++ programming development and support for Itasca's FLAC and FLAC3D software; assistance with the development and testing of the Graphical Interface for Itasca Codes (GIIC).

*Structural Engineering* — Ultrasonic tests of prismatic concrete specimens under uniaxial compressive cyclic loading by means of longitudinal and shear waves; two-dimensional finite-element simulations of wave propagation in loaded and unloaded concrete specimens; ultrasonic testing of steel specimens loaded into the plastic regime; finite-element simulations of wave propagation in loaded steel specimens; Development of a pseudodynamic test program for testing of structures; implementation of improved implicit time integration scheme; pseudodynamic tests on a two-degree-of-freedom steel structure as a part of code validation.