

**Software Engineer*****Expertise***

Software design and development  
Numerical Modeling, Rock and Soil Mechanics,

***Education***

Ph.D. (Geomechanical Engineering), 2018, *Université Grenoble Alpes*  
M.Sc. (Geomechanical Engineering), 2014, *Université Joseph Fourier - Grenoble*  
B.Sc. (Civil Engineering), 2011, *Universidad de los Andes (Colombia)*

***Experience***

<i>2019 –</i>	<i>Itasca Consultants S.A.S – Écully, France, Software Engineer</i>
<i>2018 – 2019</i>	<i>IMSRN/Laboratoire 3SR – Grenoble, Geotechnical Engineer</i>
<i>2014 – 2018</i>	<i>Laboratoire 3SR – Grenoble, Ph. D.</i>
<i>2011 – 2013</i>	<i>Ingetec S.A. – Bogota, Colombia, Geotechnical Engineer</i>

***Project experience***

- Development of a Material Point Method code (*MPMbox*) in 2D and 3D using C++
- Development of a code for trajectory analysis using a DEM/MPM coupling
- Continuum numerical analysis of elasto-plastic geomaterials
- Hydrogeological characterization of rock masses
- Slope stability analyses