

ANGÉLICA ALVAREZ NARANJO

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GEOLOGY/STRUCTURAL GEOLOGY/TECTONICS/GEOLOGICAL HAZARDS/GEOTECNICS

Geologist with experience in structural geology and tectonics, geohazards, regional and detailed geological mapping, college teaching, geotechnical mapping, slope stability analysis for infrastructure projects, geological and geotechnical consulting. Can achieve complex projects, excellent interpersonal and leadership skills, both in industry and academic environments, significant field experience.

PROFESSIONAL EXPERIENCE

UNIVERSIDAD INDUSTRIAL DE SANTANDER • Bucaramanga, Santander, Colombia • February 2019 – Present

Lecturer

Main Tasks:

- Teaching of undergrad level courses: Introduction to Geosciences, Structural Geology, Advanced Structural Geology, Field Geology, Geomorphology, and Geology for Engineers and Biologists.
- Supervisor and evaluator of undergraduate research projects.

Services Provider– Structural Geologist for a Mass Movement Hazard Project • 2020 - 2021

Main Tasks:

- Structural mapping at a 1:25,000 scale using remote sensing and fieldwork across six municipalities in the Norte de Santander state, Colombia.
- Construction of structural cross-sections, block diagrams, and preliminary analysis of mass movement susceptibility based on proximity to geological structures.

UNIVERSIDAD DE CALDAS • Manizales, Caldas, Colombia • 2022 y 2024, 2025

Lecturer

Main Tasks:

- Teaching of masters and PhD level course: Microtectonics.

VISION NORTE • Manizales, Caldas, Colombia • August 2016 – December 2017

Mining and Geological Consulting Area Coordinator

Main Tasks:

- Design and start-up of a new area within the company in charge of geological consulting, territory and risk management and mining exploration.
- Mineral exploration for small-scale gold mining projects.
- Formulation of environmental management plans.

DITERRA • Antioquia, Colombia • 2009 – 2011, 2018

Geologist

Main Tasks:

- Geological and geomorphological mapping with an emphasis on geotechnical engineering.
- Characterization and mapping of instability processes.
- Creation of geological and geotechnical thematic maps.
- Geotechnical logging of soils and rocks.

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY • Rolla, MO, USA • May 2011 - July 2016

Research and Teaching Assistant

Main Tasks:

- Structural and geological analysis of basement structures through remote sensing and fieldwork to assess the influence of inherited structures on nascent rift faults.
- Teaching of field geology camps, structural geology and remote sensing courses.

PORCE III HYDRO-ELECTRICAL PROJECT • Antioquia, Colombia • September 2006 - September 2008

Geologist

Main Tasks:

- Generated detailed structural and geotechnical maps and profiles of slopes and tunnels, in a main hydro electrical generation power project.
- Advised as geological consultant assessing rock massif and soil stability.
- Generated technical reports for interpretation of technical work groups.
- Detailed descriptions of rock cores.

GEOINGENIERIA LTDA • Antioquia, Colombia • January 2006 - September 2006

Geologist

Main Tasks:

- Generated detailed geological and structural maps.
- Identified specific areas with geotechnical instabilities and developed high resolution maps and detailed reports.
- Detailed descriptions of rocks cores and soil samples.

PROYECTOS ANDINOS S.A. • Lima, Peru • January 2004 - November 2005

Environmental and HSQ Coordinator

Main Tasks:

- Assessed geological hazards of areas surrounding power transmission towers.
- Inspected the design and construction of structures to prevent damage in the power transmission towers related with geological and geotechnical hazards.
- Created and implemented Environmental and HSQ (Health Security Quality) plans.

CORPORACION AUTONOMA REGIONAL DE CALDAS • Caldas, Colombia • March 2002 - April 2003

Research Intern

Main Tasks:

- Generated the geological, structural, and surface unit maps of a 388 Km² hydrological basin.
- Performed detailed mapping and description of mass movements and their relationship with geological, hydrological, and anthropogenic elements.
- Analyzed statistically mass movements and diagnosed the susceptibility for erosion for the basin.

EDUCATION

PHD IN GEOLOGY AND GEOPHYSICS • MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY • Rolla, MO, USA • July 2016

B.S. GEOLOGY • UNIVERSIDAD DE CALDAS • Manizales, Caldas, Colombia • May 2003
