



Alejandra Alfaro is a civil engineer graduated from Universidad de Chile in 2014. She performed her specialization in the geotechnical area, including applications in the seismic, mining and hydrogeology engineering. In 2012 she started her thesis project, getting experience in numerical modeling using FLAC^{3D}.

From July 2013 to July 2015, she worked as a Project Engineer in Golder Associates S.A., being part of the numerical modeling team. She worked in site characterization to perform stability analysis of slopes, dams and foundations designs. She got experience in the following softwares: FLAC, FLAC^{3D}, Slide, GeoSlope and DAN-W. She worked in the following projects: Quebrada Blanca, Distrito Minero Centinela, Sociedad Contractual Minera El Abra, Codelco División Chuquicamata y Compañía Minera Antamina.

EDUCATION

University of California, Berkeley

Master of Science in Geotechnical and Geoenvironmental Engineering, 2016

Universidad de Chile

Physics and Mathematical School
Civil Engineering
Graduate with Highest Distinction, 2014

In 2015 she began her graduate studies in the University of California, Berkeley, getting her Master of Science degree in Geotechnical and Geoenvironmental Engineering in 2016.

In October 2016 she returned to the numerical modeling group in Golder Associates S.A., Mine Waste department. During this period, she applied the acquired knowledge of soil behavior and advanced constitutive models in the numerical modeling of water and tailings dams. The full development of these advanced models involved: geotechnical characterization with laboratory and field tests; calibration of geotechnical materials and modeling of structural elements; creation of meshes; dynamic analysis; analysis of seismic risk studies and use of spectra of accelerations and accelerograms. Additionally, she worked on dam breach analyses with the three-dimensional software DAN3D.

LENGUAGES

Spanish
English

In February 2018 she decided to go for new challenges in Tierra Armada Chile SpA. She got to combine her expertise area with the design of retaining, crossing and protective solutions as the MSE walls are, joining the engineering department by managing projects, participating in field visits and performing numerical modelling, primarily, in civil and mining projects.

AREA OF INTEREST

Geotechnical Engineering
Seismic Engineering
Mining and Civil Engineering

DRIVING LICENSE

Class B (Chilean)

CONTACT

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PROFESSIONAL EXPERIENCE



Tierra Armada Chile – Santiago, Chile.

Project Manager/Civil Engineer

(February 2018 – present)

Engineering Department



Golder Associates S.A. – Santiago, Chile.

Civil Engineer (October 2016 to February 2018)

Mine Waste Department



Golder Associates S.A. – Santiago, Chile.

Civil Engineer (July 2013 to July 2015)

Engineering Department

SOFTWARESFLAC^{3D} and FLAC

DAN-W

SLOPE/W, SEEP/W, SLIDE

MSEW

M. Office: Word, Excel, Power
Point

Matlab

MathCAD

GEOFUN - Ingeniería en Geotecnia y Fundaciones (Geotechnical and Foundation Engineering)*Second professional internship (December 2010 to January 2011)****IDIEM – “Investigación, Desarrollo e Innovación de Estructuras y Materiales” (Center for research, development and innovation of structures and materials)*** Engineering Department*First professional internship (December 2009 to January 2010)***TEACHING
EXPERIENCE****Teaching Assistant/****Grader/Reader: Geotechnical,
Geomechanical and Soil****Laboratory Courses**Civil Engineering Department,
Universidad de Chile 2010-2013**Grader/ Reader: Isostatic
structures analysis, Structural
analysis and Structural
dynamics**Civil Engineering Department,
Universidad de Chile 2009-2011**OTHERS****Register of damage after 2010
Maule Earthquake**Universidad de Chile- Urbanism
and Architectural School – 2010**Post seismic emergency
construction after 2010 Maule
Earthquake**Un Techo Para Chile and FECH
– 2010**Construction of basic
prefabricated wood structures**
Un Techo Para Chile - 2007 a
2008**PROJECT EXPERIENCE**

- Numerical Modeling/Deformation analysis - FLAC^{3D} and FLAC.
- Dam breach analysis - DANW.
- Stability analysis of dumps, lixiviation piles and tailings/water dams using SEEP/W, SLOPE/W and SLIDE.
- Geotechnical characterization, monitoring of geotechnical parameters.
- sCPTu analysis (pore pressure, shear wave velocity).
- Design of MSE Walls and others retaining, cross and protection structures – MSEW.

CONFERENCES AND TRAINING***18th International Conference on Soil Mechanics and Geotechnical Engineering***

Palais des Congrès, Paris, France, 2013.

5th International Young Geotechnical Engineers' Conference

Ecole des Ponts ParisTech, Paris, France, 2013.

VII Chilean Conference on Geotechnical EngineeringGeotechnical Chilean Society and Civil Engineering Department,
Universidad de Concepción, Concepción, 2012.***International Course PERMAFROST Y AMBIENTE PERIGLACIAL.
Engineering, Geohazards Assessment and Periglacial Environment Impacts.***
BGC Engineering Inc. and Civil Engineering Department, Pontificia
Universidad Católica de Chile, 2012.**CONFERENCE PAPER**Alfaro , A. , Moffat, R. ***3D NUMERICAL MODELING FOR SLOPE STABILIZATION USING HORIZONTAL DRAINS.*** 5th International Young Geotechnical Engineers' Conference - 5th iYGEC 2013 Edited by Y.-J. Cui et al. © 2013. August. Paris, France.

THE REGENTS OF THE

University of California

ON THE NOMINATION OF THE
GRADUATE COUNCIL OF THE BERKELEY DIVISION
HAVE CONFERRED UPON

ALEJANDRA CAROLINA ALFARO ALARCON

THE DEGREE OF MASTER OF SCIENCE
IN ENGINEERING

WITH ALL THE RIGHTS AND PRIVILEGES THERETO PERTAINING

GIVEN AT BERKELEY

THIS THIRTEENTH DAY OF MAY IN THE YEAR
TWO THOUSAND AND SIXTEEN

Edmund G. Brown, Jr.
GOVERNOR OF CALIFORNIA AND
PRESIDENT OF THE REGENTS

Janet Aykroyd
PRESIDENT OF THE UNIVERSITY

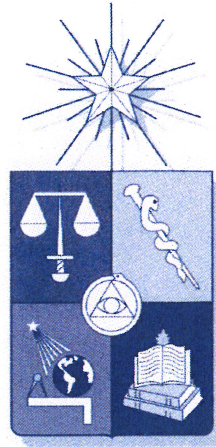


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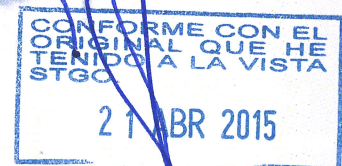
*Certifico que el 07 de Marzo de 2014 el Rector de la Universidad de Chile otorgó a doña **ALEJANDRA CAROLINA ALFARO ALARCÓN**, el título de **INGENIERO CIVIL** y fue aprobada con distinción máxima 7,0.*

Santiago, 02 de Octubre de 2014



M. E. Grande
Jefe de la Oficina de Títulos y Grados

Escala de Notas:
aprobado 4 - 4.9 aprobado con distinción 5 - 5.9 aprobado con distinción máxima 6 - 7
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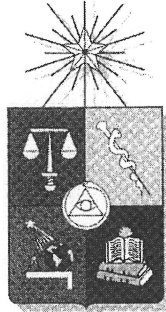


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Universidad de Chile

I hereby certify that on March 7, 2014 the President of Universidad de Chile awarded Ms. **ALEJANDRA CAROLINA ALFARO ALARCÓN**, the **PROFESSIONAL DEGREE IN CIVIL ENGINEERING**, and passed with High Honors with a grade of 7.0.

Santiago, October 2, 2014

(Three University Stamps and Perfin)

*(Illegible Signature and
Embossed Seal)*

*Enrollment and Academic
Records*

Grading Scale:

Passed 4.00 – 4.9. Passed with Honors 5 -5.9. Passed with High Honors 6 - 7

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(Illegible Bar Code)



I, Claudia Carrillo, Educational Adviser of the Centro de Asesoría Académica EducationUSA, certify the authenticity of the above translation.

Claudia Carrillo

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