

# Matías Rojas León

STRUCTURAL / EARTHQUAKE ENGINEER

## Professional Experience & Current Activities

- Aug 2020 – Actuality** **PhD Candidate at University of California, Los Angeles. California, United States**  
Research on seismic design and behavior of RC structures, and TA of RC design-related classes
- Sep 2018 – Jul 2020** **PhD Student at University of California, Los Angeles. California, United States**  
Research on seismic design and behavior of RC structures, and TA of RC design-related classes
- Aug 2015 – Aug 2018** **Project Engineer at Moffatt & Nichol Chile**  
Analysis and design of maritime structures at pre-FEED, FEED and Detailed Engineering levels. In addition, support in studies/reports related to projects and in project coordination.
- Jan 2014 – Aug 2014** **Assistant Engineer at Rubén Boroschek & Asociados Ltda.**  
Analysis and design of base isolation systems.
- Dec 2012 – Jan 2013** **Engineering Intern at ENV, Construction Company**  
Field Technical Office support by using SAP2000 to model the steel building under construction (“Nuevo Sistema de Recuperación de Salmuera MOP H-1”) to assess the material take-off and Progress Reports.
- Jul 2012 – Aug 2012** **Engineering Intern at Rubén Boroschek & Asociados Ltda.**  
Support in data processing for the seismic isolation area.
- Jan 2006 – Feb 2006** **Laborer at LGM, Construction Company**  
Laborer in the construction of Eltit Supermarket in Villarrica, Chile.

## Completed Education

**Postgraduate Diploma in Seismology (2017)**  
Geophysics Department, Faculty of Physical Sciences and Mathematics, University of Chile

**Master in Earthquake Engineering (2014 – 2015)**  
CONICYT Scholarship Holder  
Civil Engineering Department, Faculty of Physical Sciences and Mathematics, University of Chile

**Structural Engineering (2008 – 2015)**  
Civil Engineering Department, Faculty of Physical Sciences and Mathematics, University of Chile

## Teaching Assistantship

Civil and Environmental Engineering  
University of California, Los Angeles  
Classes: - CEE243A Design and Behavior of RC Elements  
- CEE246 Structural Response to Ground Motions  
- CEE140L Structural Comp. System Testing Lab.  
- CEE144 Structural Systems Design

Civil Engineering Department  
Faculty of Physical Sciences and Mathematics  
University of Chile

Classes: - Dynamics of Structures  
- Advanced Dynamics of Structures  
- Earthquake Engineering  
- Matrix Analysis of Structures.

Mathematical Civil Engineering Department.  
Faculty of Physical Sciences and Mathematics  
University of Chile

Classes: - Advanced Calculus and Applications  
- Ordinary Differential Equations  
- Introduction to Calculus

## Awards

- Outstanding student in the years 2009 and 2012.
- First Annual UCLA Performance-Based Earthquake Engineering Design Competition – 1<sup>st</sup> Place

## Publications

Rozas L, Rojas M, Boroschek R and Tamburrino A (2015). A Bidirectional Tuned Liquid Column Damper for Reducing the Seismic Response of Buildings. Journal of International Association for Structural Control and Health Monitoring.

Rojas M, Abdullah S, Kolozvari K and Wallace J (2021). Combined Machine Learning-Statistics Methodology to Obtain a Code-Oriented RC Wall Shear Strength Equation. Proceedings, 17th World Conference on Earthquake Engineering, Sendai, Japan.

Abdullah S, Opabola E, Rojas M, Kolozvari K, Elwood K and Wallace J (2021). Damage Limit States of Reinforced Concrete Flexure-Controlled Walls with Code-Conforming Detailing, 12th National Conference on Earthquake Engineering, Salt Lake City, Utah, 25 June – 1 July

Rojas M, Abdullah S, Kolozvari K and Wallace J (2021). Machine Learning and Statistics-Driven Code-Oriented Shear Strength Equation for RC Structural Walls. Proceedings, 12th National Conference on Earthquake Engineering, Salt Lake City, Utah, 25 June – 1 July.

## Softwares

Microsoft Office	MathCAD	R	Matlab
ETABS	Sap2000	Perform 3D	AutoCAD

## Languages

English (Advanced Level) / Spanish (Native)

## Qualities / Interests

Keep learning and studying	Sports	Sociable
Self-critical	Family	Travels
Willing to help	Friends	Teaching

## Contact Information

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Birthday:	August 16 <sup>th</sup> , 1989