

ALEJANDRO BELTRAN

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EDUCATION

University of Arizona

August 2016 - May 2021

PhD in Government and Public Policy

Dissertation: *Accounting for Corruption: Evaluating State Audit Agencies in Mexico*

Committee: Edella Schlager (Chair), Javier Osorio (Co-Chair), Brint Milward

University of Arizona

August 2016 - May 2018

Masters in Government and Public Policy

Universidad Autonoma de Sinaloa, Mexico

August 2011 - June 2015

Licenciatura en Políticas Públicas, *Graduated top of class*

International Exchange Student: University of New Mexico, 2013-2014

International Exchange Student: The Washington Center, 2014-2015

RESEARCH EXPERIENCE

Dissertation Research

Accounting for Corruption: Evaluating Audit Agencies in Mexico,

January 2019 - May 2021

-Used a linear probability model with fiscal and electoral data to predict sanctions.

-Extracted data from audit reports using NLP and ML, code and presentation available here.

Organized Crime Violence Event Data in Mexico

For Javier Osorio, PhD

January 2018 - Dec. 2020

Graduate Research Associate,

-Hired and trained 12 Spanish speaking students to collect and classify news articles.

-Developed a web-scraping tool that automated the collection of 150,000 articles.

-Built a text classifier using BERT, CNN, and others. Published in IEEE-IJCNN 2020.

-Project info available at: www.ocved.mx

A Nested Mixed-Methods Approach to Armed Non-State Actor Governance and the Rule of Law

Minerva Research Initiative Award No. 71623-LS-MRI.

January 2018 - Dec. 2020

Graduate Research Associate,

-Led an international team of 10 students in generating NLP data in Spanish and Arabic.

-Built online surveys using Qualtrics for deployment in Colombia and Afghanistan.

-Built a text classifier published in LREC-AESPEN 2020, more info at: colombiaarmedactors.org

Sustaining Modern Infrastructure For Political And Social Event Data,

OAC-NSF Award No. 1931541.

January 2020 - Dec. 2020

Graduate Research Associate,

-Led an international team of 3 students in generating multi-label gold standard of record.

-Scraped a news repository and performed topic modelling using LDA on collected articles.

-Used preassigned tags to build a One Vs Rest classifier and compared results to GSR.

Modernizing Political Event Data for Big Data Social Science Research,

RIDIR-NSF Award No. 1539302.

January 2018 - May 2019

Graduate Research Associate,

-Led an international team of 5 students in developing an ontology of event data in Spanish.

-Annotated text data for NER and dependency parsing ML models using Brat annotation tool.

-Debugged UD Petrarch for integration with CoreNLP and UDPipe.

RESEARCH

Book

Ciudades, Desarrollo Urbano y Autonomía Financiera: Dilemas para la Gobernanza Local en México, with Mercedes Verdugo López, Juan Pablos Editor, Culiacán, 2017 (in Spanish)

Peer-Reviewed Articles

“Enhancing the Detection of Criminal Organizations in Mexico using ML and NLP”, with Javier Osorio, IJCNN 2020, Proceedings of the IEEE World Conference on Computational Intelligence, Glasgow, July 2020.

“Supervised Event Coding From Text Written in Arabic: Introducing Hadath”, with Javier Osorio, Alejandro Reyes, and Atal Ahmadzai, Proceedings of AESPEN 2020, Language Resources and Evaluation Conference, Marseille, May 2020: 49-56

Conference Papers

“Accounting for Corruption: Evaluating State Audit Agencies in Mexico”, SGPP Works in Progress Series, Mar. 2021

“Politics as Usual: Evaluating Audit Agency Performance in Mexico”, APSA, San Francisco, Sept. 2020

“The Fentanyl Connection: Violence at Mexican Ports”, MPSA, Chicago, April 2020

“Is no news really good news? Media reports of gender-based violence and perceptions of women’s rights in Mexico”, with Alexis Work, MPSA, Chicago, April 2020

“The Fentanyl Connection: Violence at Mexican Ports”, 4 Corners Conflict Network Conference, Tucson, January 2020

“Tracking Drug Trafficking Organizations in Mexico using Web Scraping and NLP”, CSS Mini-Conference, Tucson, December 2019

“Is no news really good news? Media reports of gender-based violence and perceptions of women’s rights in Mexico”, with Alexis Work, The Public and Democracy in the Americas Conference, LAPOP, Bogota, October 2019

“The Fentanyl Connection: Violence at Mexican Ports”, Red de Estudios Sobre Drogas en America Latina, Mexico City, October 2019

“Protecting My Friends: Corruption Networks in Mexico”, APSA, Washington DC, September 2019

“Taxing and Relaxing: How Competitive Elections Fuel Punctuations in Taxation”, WPSA, San Diego, April 2019

“Taxing and Relaxing: How Competitive Elections Fuel Punctuations in Taxation”, MPSA, Chicago, April 2019

Working Papers

“Overhyped? Supreme Audit Institutions and Autonomy”

“Fiscal Data in Text: Extracting Data from Audit Reports using NLP”

“Femicides in the Press: Classifying Sentiments Using Machine Learning”, with Alexis Work

“Perfect Timing: Forbearance and Political Budget Cycles in Mexico”

“Politics as Usual: Evaluating Audit Agency Performance in Mexico”

“Tracking Corruption: News Archival Analysis Using ML and NLP”

TECHNICAL STRENGTHS

**Modeling and Analysis
Programming**

Causal Inference, NLP, Machine Learning, GIS, Network Analysis
R, Python, SQL, Perl, L^AT_EX

FELLOWSHIPS & AWARDS

Russell Sage Foundation Summer Institute in Computational Social Science <i>Teaching Assistant, organized at The University of Arizona</i>	2021
Russell Sage Foundation Summer Institute in Computational Social Science <i>Participant, organized at Duke University</i>	2020
REDESDAL Travel Scholarship <i>\$1,200 Travel Award</i>	2019
LAPOP Travel Scholarship <i>\$1,000 Travel Award, -(Co-author accepted)</i>	2019
APSA Fund for Latino Scholarship <i>\$500 Award</i>	2019
GPSC Travel Grant <i>\$500 Travel Award</i>	2019
SGPP Travel Grant <i>\$500 Travel Award</i>	2018, 2019, 2020
SGPP Summer Fellowship <i>\$2000 Award</i>	2017 & 2018
Medalla Luis F. Aguilar Villanueva <i>Academic distinction award for Undergraduate studies,- Universidad Autonoma de Sinaloa</i>	2015
Rumbo Joven 100 Fellowship <i>\$15,000 Fellowship for studying in Washington DC,- SEP, Gobierno de Mexico</i>	2014

SPECIALIZED TRAINING

ArcGIS Workshop -Learned how to do geospatial analysis using ArcGIS mapping software.	2019
L^AT_EX Workshop -Training on using L ^A T _E X for professional papers and presentations .	2019
World Bank Development Economics Workshop: Governance and the Law -Training on using the World Development Report 2017 data. -Keynote lecture from Luis F. Lopez-Calva, World Bank	2017
Seminar on Campaign Strategies -Organized by George Washington University.	2015

TEACHING

University of Arizona -Comparative Politics in the Age of Globalization, Online, Summer 2019 -Politics and Policy in the Developing World, Online, Summer 2020 -Bureaucracy, Politics and Policy, Hybrid, Spring 2021 - Public Policy and Administration, Online, Summer 2021	2019-2021
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PROFESSIONAL SERVICES

Mentor: -Engage with Latinx students at UArizona to discuss issues important to our community. -Meet with potential graduate students and offer guidance on grad school applications and offers.	
Reviewer for: -Policy Studies Journal	
Active Member: -Institute of Electrical and Electronics Engineers (IEEE)	

- IEEE Computational Intelligence Society
- Midwest Political Science Association
- American Political Science Association
- Western Political Science Association
- 4 Corners Conflict Network

INDUSTRY EXPERIENCE

D&P Creative Strategies, Washington DC *2014-2015*
Public Policy Intern, Government Relations

- Developed strategies for effective communication between clients & Members of Congress.
- Briefed Congressional staff on policy and issues relevant to clients and Member constituents.

Senate Majority Whip's Office, Santa Fe, NM *2013*
Public Policy Intern

- Met with constituents on policy issues and discussed legislation with interest groups.
- Developed policy briefs summarizing legislation and constituent concerns.
- Attended congressional hearings and provided the Senator with guidance on committee votes.

OTHER

Languages: native Spanish, native English, reading Portuguese, reading French

Skills: Effective leader, clear communicator, self motivated

Interests: boxing, running, traveling, food, learning