

# SERGIO GONZALES

*curriculum vitæ*

Biomedical Informatics Training Program  
Stanford University School of Medicine  
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## EDUCATION

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2019–	<b>Stanford University School of Medicine</b> Biomedical Informatics	PhD
2017–	<b>University of New Mexico School of Medicine</b>	MD
2015–2017	<b>Harvard University Graduate School of Arts &amp; Sciences</b> Economics	Visiting Student
2010–2015	<b>University of New Mexico College of Arts &amp; Sciences</b> Mathematics, Statistics, Natural & Social Sciences Navajo Language & Linguistics and Chicana & Chicano Studies	BA ΦBK, <i>summa cum laude</i>

## PUBLICATIONS

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JA Lossio-Ventura, **S Gonzales**, J Morzan, H Alatrística-Salas, T Hernandez-Boussard, & J Bain. “Evaluation of clustering and topic modeling methods over health-related tweets and emails.” *Artificial Intelligence in Medicine*. 2021

**S Gonzales** & BD Sommers. “Intra-Ethnic Coverage Disparities and Effects of Health Reform.” *Health Services Research*. 2018

**S Gonzales**, M Mullen, L Skolarus, D Thibault, U Udoeyo, & A Willis. “Progressive Rural-Urban Disparity in Acute Stroke Care.” *Neurology*. 2017

## PRESENTATIONS

### TALKS

January 2023 **Novel Machine Learning Method for Missing Data**

June 2022 **Development of a real-valued representation of sex physiology in EHR**  
The National Library of Medicine T15 Training Grant Annual Meeting

March 2021 **Statical and community based methods for assessing algorithmic fairness**  
Biomedical Informatics Program Tuesday Talk Series

May 2020 **Separation of autofluorescence in multiplexed immunofluorescence imaging**  
Biomedical Informatics Program Tuesday Talk Series

July 2018 **Computer vision methods for segmentation of intracranial tumors**  
Mallinckrodt Institute of Radiology Summer Fellow Symposium

### POSTERS

June 2016 **Intra-ethnic disparities in health insurance coverage and reform effects**  
American Society of Health Economists Biannual Meeting

August 2014 **Effects of Primary Stroke Center Certification on Acute Stroke Outcomes**  
Summer Undergraduate Minority Research Symposium

## RESEARCH EXPERIENCE

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Spring 2020	<b>Rotation Student</b> , <b>Daniel Rubin PhD</b> , Stanford University Cell segmentation algorithm of high resolution H&E images with CNNs
Winter 2020	<b>Rotation Student</b> , <b>Sylvia Plevritis PhD</b> , Stanford University Subtraction of autofluorescence in high resolution, multiplexed immunofluorescence with CNNs and generation of validation data for subtraction algorithms with statistical models and conditional GANs
Summer 2019	<b>Rotation Student</b> , <b>Tina Hernandez-Boussard PhD</b> , Stanford University Methods for clustering and topic modeling of health related text
Summer 2018	<b>Summer Fellow</b> , <b>Daniel Marcus PhD</b> , Washington University in St. Louis School of Medicine, Mallinckrodt Institute of Radiology Segmentation of intracranial tumors with CNNs
2016–2017	<b>Research Assistant</b> , <b>Nathaniel Hendren PhD</b> , Harvard University Causal Identification of historical impacts of slavery on social mobility today
2015–2016	<b>Research Assistant</b> , <b>Benjamin D. Sommers MD PhD</b> , Harvard University Identification of variation of intra-ethnic variation in effects of the Affordable Care Act among Latinos
2014–2016	<b>ArcGIS Specialist</b> , Southwest Hispanic Research Institute Prepared and analyzed digital maps of historic and current boundaries of Land Grants in Northern New Mexico
Summer 2014	<b>Research Assistant</b> , <b>Allison Willis MD MSc</b> , University of Pennsylvania Characterization of trends in geographic disparity in standard of care and hospital accreditation
Spring 2014	<b>New Mexico Department of Health Occupational Health Surveillance Project</b> , Stephanie Moraga-McHaley MS, NM DOH Calculated federally required occupational health statistics for the state of New Mexico
Spring 2014	<b>An Experimental Analysis of Subject-Object Inversion in Diné Bizaad (Navajo)</b> , Paul Platero PhD, University of New Mexico Experimentally tested noun class ordering and subject-object inversion linguistic theory with native speakers of Diné Bizaad

## AWARDS

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2015	Rhodes Scholarship Finalist
2015	Marshall Scholarship Finalist
2014	Elected to Phi Beta Kappa
2013	El Centro de la Raza Outstanding Scholar Award
2010–2015	College of Arts and Sciences Dean's List
2010–2014	University of New Mexico Presidential Scholar

## LEADERSHIP

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2021–	<b>Secretary, Board of Directors</b> , Earth Care [501(c)(3)]
2020–2022	<b>Secretary</b> , <b>Society of the Advancement of Chicanos and Native Americans in STEM</b>
2020, 2021	<b>Program Leader</b> , <b>ADVANCE Program Summer Institute</b>
2018–2019	<b>President</b> , Association for the Advancement of Minorities in Medicine
2017–2019	<b>Admissions Committee Member</b> , University of New Mexico School of Medicine Combined BA/MD Program
2014–2015	<b>Cabinet Member</b> , University of New Mexico Office of the President
2013–2015	<b>Core Team Member</b> , Bernalillo County Place Matters
2013–2014	<b>Board Member</b> , Chicana & Chicano Studies Program Advisory Board
2013–2014	<b>Co-Chair</b> , Movimiento Estudiantil Chicana/Chicano de Aztlán del Universidad de Nuevo México

## TEACHING

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Spring 2022	<b>BIOMEDIN 210: Modeling Biomedical Systems</b> , Teaching Assistant, Stanford University School of Medicine
Spring 2021	<b>BIOMEDIN 230: Biomedical Imaging</b> , Teaching Assistant, Stanford University School of Medicine
Fall 2015	<b>BIOC 423: Introductory Biochemistry</b> , Teaching Assistant, University of New Mexico College of Arts and Sciences
Fall 2014	<b>Supplemental Instructor</b> , University of New Mexico Center of Academic Support Prepared supplemental lectures, worksheets, and practice quizzes/exams for upper division biochemistry courses.

## TECHNICAL SKILLS

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**Programming Languages:** Python, R, Javascript, SQL, Julia

**Software:** ArcGIS, QGIS, 3D Slicer, Stata, MatLab

**Languages:** *Español*, *Diné Bizaad* (Navajo)

**Other:** L<sup>A</sup>T<sub>E</sub>X, git