

AJ ALVERO

ajalvero@stanford.edu – @aj_alvero – www.ajalvero.com

RESEARCH INTERESTS

Computational Social Science	Sociolinguistics	Sociology of Race & Ethnicity
Access & Inequality in Education	Applied NLP	Fairness & Ethics in Computation

EDUCATION

PhD in Education Data Science || Race, Inequality, & Language in Education *exp.* 2022

Stanford University

Graduate Certificate in Computational Social Science

MS in Statistics 2021

Stanford University

MS in Foreign Language Education (TESOL) 2016

Florida International University

Thesis: ‘Efficacy and Implementation of Automated Essay Scoring Software in Instruction of Literacies to High Level ELLs’

BA English Minor in Modern Languages (Spanish & Haitian Creole) 2012

University of Miami

POSITIONS

Stanford University

Graduate Affiliate, Pathways Lab [[Link](#)] 09/2019 – Present

Co-founder, Student Narratives Lab [[Link](#)] 09/2018 – Present

Graduate Research Assistant 09/2016 – Present

Instructor in Data Science & Education courses 09/2016 – Present

K-12 Education

Miami-Dade County Public Schools

High School Language Arts Teacher 09/2013 – 06/2016

Claes Nobel Educator of Distinction (National Society of High School Scholars)

Rated ‘highly effective’ by the Florida Department of Education

RESEARCH & WRITING

Peer-Reviewed Publications

3. Alvero, A., Giebel, S., Gebre-Medhin, B., Antonio, A., Stevens, M., Domingue, B. (2021) “Essay Content and Style are Strongly Related to Household Income and SAT Scores: Evidence from 60,000 Undergraduate Applications.” (*Science Advances*). [[Paper](#)][[Code/Data](#)]

2. Arthurs, N., Alvero, A. “Whose Truth is the “Ground Truth”? College Admissions Essays and Bias in Word Vector Evaluation Methods.” *Proceedings of the 13th International Conference on Educational Data Mining* [[Paper](#)]

1. **Alvero, A.**, Arthurs, N., antonio, a., Domingue, B., Gebre-Medhin, B., Giebel, S., Stevens, M. (2020) “AI and Holistic Review: Informing Human Reading in College Admissions.” *Proceedings of the AI, Ethics, and Society* [[Paper](#)]

Under Review

- 2021 Gebre-Medhin, B., Giebel S., **Alvero, A.**, antonio, a., Domingue, B., Stevens, M. “Merit for All: Application Essays and the Ritual Production of Merit in US Selective Admissions.” [[Preprint](#)]
- 2021 Tena-Meza, S., Suzara, M., **Alvero, A.** “Coding with Purpose: Learning AI in Rural California.” (*Revise and resubmit*)[[Preprint](#)]

Manuscripts in Preparation

- 2021 **Alvero, A.**, Giebel, S. “Evolution of the One Drop Rule: How College Applicants Define Latinx Identity” (*Details of work available upon request*)
- 2021 **Alvero, A.** “The Strategic Use of Spanish in Evaluative Contexts” (*Details of work available upon request*)
- 2021 **Alvero, A.**, Luqueño, L., antonio, a. “Computational Social Science for Research on Intersectionality: Affordances and Considerations in the Context of College Admissions” [[Link](#)]
- 2021 Giebel, S., **Alvero, A.** “Gender, Class, and the Pursuit of Academic Inspiration: Lessons from Undergraduate Application Materials” [[Link](#)]
- 2022 **Alvero, A.** “Critical Perspectives on the Use of Readability Scoring in Education” (*Abstract under review for special issue*) [[Link](#)]
- 2022 **Alvero, A.**, Zárate, R., Mesinas, M. “Ethnicity, Capital, and Pathways: Computational Mixed Methods Analysis of Latinx Transfer Admission Essays” [[Link](#)]
- 2022 **Alvero, A.**, Kanopka, K., Sedlacek, Q., “A Call for Critical and Constructive Educational Data Science” [[Link](#)]
- 2022 **Alvero, A.**, Moussavian, M., Pal, J. “Does the Essay Prompt Matter? Combining Causal Inference and NLP to Study Latinx Transfer Admission Essays” (*Details of work available upon request*)

Opinion

- 2020 **Alvero, A.** “Renaming ‘Confederate Corners’ doesn’t cost a thing.” *The Salinas Californian*. [[Article](#)]

TEACHING

Introduction to Statistical Methods

Fall 2021

With Dan Schwartz

Stanford University, Graduate School of Education

Introduction to Data Science

Winter 2019

With Sanne Smith and Dan McFarland

Stanford University, Graduate School of Education & Department of Sociology

Equity and Schooling

Summer 2019

With Jonathan Rosa

Stanford University, Graduate School of Education

The Centrality of Literacies

With Antero Garcia

Stanford University, Graduate School of Education

Summer 2017, 2018

Adolescent Development

With Linda Darling-Hammond and Shayna Sullivan

Stanford University, Graduate School of Education

Fall 2016, 2017

PRESENTATIONS

Invited Presentations & Lectures

- 2021 College Board, Research and Psychometrics Team; University of California, Board of Admissions and Relations with Schools (BOARS)
- 2018 Stanford University, Center for Population Health Sciences; Stanford University, Students for Education Reform; Stanford University, Computational Text Analysis in the Social Sciences Group; Stanford University, Higher Education Exchange of Research

Conference Presentations & Activities

- 2021 National Association for College Admission Counseling (NACAC) Conference
“Admissions Essays are Strongly Related to Household Income and SAT Scores”
With Sonia Giebel & Francis Pearman
- 2021 American Sociological Association
“Gender and the Pursuit of Academic Inspiration: Lessons from Undergraduate Application Materials.”
With Sonia Giebel
- 2021 American Education Research Association
“Surfacing Gender and Class Patterns in Undergraduate Application Materials: Implications for Academic Pathways.”
With Sonia Giebel
- 2021 ACM Conference on Fairness, Accountability, and Transparency (FAccT)
Doctoral Colloquium
- 2020 Mechanism Design for Social Good (MD4SG)
“From Pipeline to Pipelines: How Multiple Definitions of CS Education Distort Enrollment Data”
With Stephanie Tena-Meza & Miroslav Suzara
- 2020 Association for the Study of Higher Education
“In Between the Lines: Discovering the Nuances with Latinx Transfer Essays”
With Rosalia Zárata & Melissa Mesinas
- 2020 Society for Social Studies of Science Conference (*declined*)
“Beyond Learners: A Conceptual Framework for AI in Education Research at Meso- and Macro-Levels”
With Mitchell Stevens
- 2020 American Sociological Association
“Applications Essays and the Performance of Merit in US Selective Admissions.”
With Ben Gebre-Medhin, Sonia Giebel, anthony antonio, Ben Domingue, & Mitchell Stevens

- 2020 American Educational Research Association Satellite Conference on Data Science
 “A Call for Critical and Constructive Data Science in Teacher Education.”
 With Klint Kanopka & Quentin Sedlacek
- 2020 Comparative & International Education Society
 “Beyond grades and test scores: Understanding school effects on college access through semantic analysis of application essays of Latinx students.”
 With anthony antonio
- 2020 26th Annual Conference on Language, Interaction, and Culture at UCLA (*cancelled*)
 “Embedded Ideologies: Challenging the Broad Use of Readability Scoring.”
- 2020 Sociology of Education Association
 “The Co-Creation of Narratives of Academic Worth in Undergraduate Admissions: Evidence from a Corpus of 826,624 College Essays.”
 With Ben Gebre-Medhin, Sonia Giebel, anthony antonio, Ben Domingue, & Mitchell Stevens
- 2019 TextXD Symposium
 “Searching for (Dis)Continuities in Ed Tech’s Discourse of Invention: A Semantic Network of Ed Tech Patents (1968 - 2016).”
 With Sebastian Munoz-Najar Galvez & Klint Kanopka
- 2018 TextXD Symposium
 “Sociocultural Factors of the College Admissions Essay.”
- 2016 Caribbean Studies Association
 “Kreyòl praxis and pedagogy in the diasporic classroom.”

Posters

- 2021 West Coast NLP (WeCNLP) Conference 2021
 “Whose Truth is the “Ground Truth”? College Admissions Essays and Bias in Word Vector Evaluation Methods”
- 2021 Transforming Institutions Conference
 “Topic Distributions in Latinx College Admissions Essays by Geography, Language, and Parental Education”
 With Leslie Luqueño & anthony antonio
- 2020 Mechanism Design for Social Good (MD4SG)
 “Designing for Fairness in a Post-SAT College Admissions Universe” With Sonia Giebel
- 2019 International Conference on Machine Learning (Latinx in AI Workshop)
 “Unsupervised Text Analysis in Applied Settings: A Case Study in Selective College Admissions.”
- 2017 Race, Inequality, and Language in Education (RILE)
 “Machine Learning Gets a Tutor: Literacy, Language, and Computational Methods.”

PROJECTS & GRANTS

Student Narratives Lab

Initiated data share with University of California Office of the President
 PIs: Mitchell Stevens, anthony antonio, Ben Domingue

Building an Anti-Racist GSE

Syllabus consultant, Education Data Science courses

Computational Text Analysis in the Social Sciences

“Student Projects for Intellectual Community Enhancement” Grant (\$5,000)

SELECT MEDIA MENTIONS & APPEARANCES

Harper’s Index: September 2021

Harper’s Magazine [\[Link\]](#)

Opinion: Colleges’ Grand Promise of Test-Optional Admissions is Self-Serving

The Philadelphia Inquirer [\[Link\]](#)

Mixed Report on Test-Optional Admissions

Inside Higher Ed [\[Link\]](#)

Opinion: Canceling Standardized Testing Does a Diservice to Disadvantaged Students

Newsweek [\[Link\]](#)

How the National Test-Optional Experiment Played Out at US Colleges

Higher Ed Dive [\[Link\]](#)

What A New Study On College and Family Income Really Means

Forbes Magazine [\[Link\]](#)

Getting Answers

ABC7 News Bay Area (KGO-TV) [\[Link\]](#)

Do College Application Essays Favor the Wealthy?

Inside Higher Ed [\[Link\]](#)

The Persistent Grip of Social Class on College Admissions

The New York Times [\[Link\]](#)

Spilling Trauma: Students From Marginalized Backgrounds Feel Pressured To Write About Hardship

Mustang News (Cal Poly) [\[Link\]](#)

Fairness in College Admissions with Ben Domingue and AJ Alvero

School’s In (Podcast with Stanford GSE Dean Dan Schwartz and Denise Pope) [\[Link\]](#)

Inconvenient Facts for the War on Testing: College admission based on personal essays helps affluent students

Wall Street Journal Opinion [\[Link\]](#)

Take Your Hands Off (with Alua Arthur)

Pod Save the People [\[Link\]](#)

America tries to figure out a fairer way to select students

The Economist [\[Link\]](#)

The Journal Editorial Report: April 10

The Journal Editorial Report [\[Link\]](#)

A researcher from Salinas is using artificial intelligence to make college admissions more equitable

Monterey County Weekly [\[Link\]](#)

What’s in a Name? Meet the Government Employees Who Make the Call

The Smithsonian Magazine [\[Link\]](#)

Salinas Native Trying to Change Name of ‘Confederate Corners’
The Salinas Californian [\[Link\]](#)

HONORS & AWARDS

Stanford University

Human-Centered Artificial Intelligence (HAI) Graduate Fellow	\$2,000	09/2021 – 06/2022
McCoy Family Center for Ethics in Society Fellow	\$3,000	09/2020 – 06/2021
Diversifying Academia, Recruiting Excellence Fellowship	\$96,200/2 years	09/2019 – 06/2021
Interdisciplinary Graduate Fellowship		
<i>Naidu Family Interdisciplinary Graduate Fellowship</i>	\$133,080/3 years	09/2018 – 06/2020
Enhancing Diversity in Graduate Education Fellowship	\$12,800/4 years	09/2016 – 06/2020
The Dean’s Fellowship	\$30,000	09/2016

Florida International University

FLAS Summer Fellowship at the Haitian Summer Institute	\$6,680	05/2015
Madeline Kitts Scholarship	\$5,000	05/2015
FIU Graduate Grant	\$5,000	05/2015
Bellsouth Education Scholarship	\$3,000	08/2015
FIU Latin American and Caribbean Center Scholarship	\$500	05/2015

Other

International Conference on Machine Learning Travel Grant	\$1,500	06/2019
El Centro Chicano y Latino Charlene J. Porras Award	\$1,000	06/2019
El Centro Chicano y Latino Outstanding Graduate Mentor		09/2018 – 06/2019
Hispanic Scholarship Fund (2016 and 2017)	\$6,500	
Eugene V. Cota-Robles Fellowship (<i>declined</i>)		

PROFESSIONAL ACTIVITIES

Member

Institute of Critical Quantitative, Computational, and Mixed Methodologies, Diversity Scholars Network (National Center for Institutional Diversity at the University of Michigan), American Educational Research Association, American Sociological Association, Latinx in AI

Reviewer

Journal: AERA Open, Proceedings of ACM Fairness, Accountability, and Transparency (FAccT), Educational Researcher

Conference: American Educational Research Association, Literacy Research Association, South Florida Education Research Conference, TESOL International

SERVICE & ENGAGEMENT

Stanford University

Co-President, Sociology and Education Network	09/2020 – 06/2021
El Centro Chicano y Latino Graduate Scholar in Residence	09-2018 – 09/2020
EDGE Mentor	09/2018 – 06/2019
Mentor and Program Organizer, Stanford GSE Mentorship Program	09/2017 – 06/2018
Financial Officer, Computational Text Analysis in the Social Sciences	09/2017 – 06/2020

Advising

Graduate Student Advisor:

Thea Rossman, Capstone Project in Critical Studies in Race and Ethnicity 2020

Noah Arthurs, Undergraduate Thesis in Computer Science 2017

Research supervisor, Stanford Institute for Research in the Social Sciences
Research Assistant Internship Program [\[Link\]](#) 06/2020 – Present
Interns: Alicia Hoffmann, Misha Moussavian, Jasmine Pal

TRAINING, WORKSHOPS, & OTHER EXPERIENCES

The Summer Institutes in Computational Social Science 06/2020 – 07/2021
Instructor, San Francisco Bay Area site (BAY-SICSS)
Virtual

Stanford Graduate Summer Institute 08/2020
Student, *Ethics and the Academy*
Virtual

Stanford Libraries 10/2018
Presenter, *Gear Up for Social Science Data*
Palo Alto, CA

Stanford Center for Spatial and Textual Analysis 07/2017 – 09/2017
Visiting Scholar
Palo Alto, CA

ICPSR Summer Program in Quantitative Methods of Social Research 06/2017
Student, *Machine Learning for the Analysis of Text as Data*
Chapel Hill, NC

Haitian Summer Institute at Florida International University 06/2015 – 08/2015
Student and FLAS Fellow, Kimberly Green Latin American and Caribbean Center
Miami, FL & Southern Haiti

Cuban Heritage Collection at the University of Miami 08/2011 – 02/2012
Student archivist
Coral Gables, FL

LANGUAGES & SKILLS

Human Languages

Fluent Spanish; Proficient Haitian Creole; Basic Japanese (written and spoken)

Computer Languages & Software *Frequent:* R, Python, LaTeX, Unix, SLURM, Microsoft Office, Google Drive; *Not as frequent:* Javascript, Stata, Tableau, C++