

Juan Ruben Gomez

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SUMMARY

Computational social science researcher specializing in **misinformation analysis**, **online civic discourse**, **trust & safety modeling**, and **AI-mediated communication systems**. Strong background combining **statistical modeling**, **LLMs**, **NLP**, and **sociotechnical research** to understand how digital systems shape beliefs, behavior, and collective outcomes. 7+ years of experience leading high-impact research at Reddit and Twitter. Skilled at translating complex insights into product and policy interventions.

EDUCATION

Master of Computational Social Science (MACSS)
University of California, Berkeley • Expected May 2026

Bachelor of Science, Business Administration
California State University, Long Beach • Emphasis in Digital Media & Recommender Systems

GRADUATE RESEARCH EXPERIENCE

Graduate Student Master of Computational Social Science

University of California, Berkeley • Jul 2025 - May 2026

Finfluencer Impact Modeling (Applied Statistics)

Created a panel-data empirical model estimating the effect of “**finfluencer**” **stock recommendations** on next-day retail trading volume. Estimated a **fixed-effects panel regression** with lagged predictors to isolate within-stock variation and reduce simultaneity concerns. The model is *causal-inference-inspired* but observational. Motivation: Explores how online influence and parasocial trust reshape financial behavior.

Misinformation Topic Modeling & LLM Analysis (Advanced Computing + CSS1A)

Performed NLP and LLM analysis on 10k+ political subreddit posts and comments to examine how misinformation circulates and engages communities.

Integrated skills from Advanced Computing such as API acquisition, TF-IDF, BERTopic, embeddings, cloud-based LLM inference, prompt engineering, and debugging workflows and identified concepts on persuasion and political polarization .

Outcome: Identified latent misinformation clusters, emotional signatures, and engagement patterns.

Radicalization Archetype LLM Project (Computational Social Science)

Developed an identity-conditioned dataset of Llama-2-7B-Chat responses by scripting synthetic user archetypes (e.g., socially isolated young men) in Python; analyzed differential LLM advice patterns to assess whether generative models may reinforce vulnerabilities associated with online radicalization pathways.

Housing Affordability & Price-to-Income Ratio Modeling

Merged and cleaned Redfin sales data and HUD permit data to compute **affordability severity indices** across California. Built ggplot visualizations illustrating generational homeownership challenges.

PROFESSIONAL EXPERIENCE

Senior Research Lead Trust & Safety, Platform Integrity

Reddit, Inc. | San Francisco, CA | Sept 2022 - May 2025

- Conducted computational and behavioral research to detect misinformation, malign actors, and emerging manipulation patterns.
- Improved proactive detection systems, reducing negative platform activity by **10%+** through strengthened behavioral-signal modeling.
- Led global election safety efforts including scenario modeling, risk analysis, discourse threat mapping resulting in **7+ new platform peremptive safeguards** resulting in a de-risking strategy to be applied to additional countries with upcoming elections.
- Co-created internal training on application of AI and data analysis tooling, doubling incident-response analytical capacity.
- Co-led trauma-informed NCII research with the UK's Revenge Porn Helpline, informing product decisions on hash-matching and protective user experiences.

Senior Research Lead Misinformation, Abusive Content & Societal Health

Twitter (X), Inc. | SF & NYC | Nov 2018 – Aug 2022

- Directed mixed-methods misinformation research combining log data, NLP, experimental methods, and qualitative interviews.
- Designed ML-powered safety features that increased safety perception across a 350M user base by **25%** and reduced harmful incidents by **40%**.
- Partnered with academic researchers to embed procedural justice, AI ethics, and fairness into platform governance.

- Redesigned global reporting workflows, improving reporting accuracy by **20%** and resolution time by **15%**.
- Conducted evidence-based misinformation labeling experiments that cut the spread of certain false election claims by as much as **70%**.

Research Analyst Growth, Innovation & Anti-Abuse

Real Labs / Purseia (Acquired) | SF & NYC | Jan 2018 - Nov 2018

Strengthened product strategy through computational and qualitative research, improving company run rate **5x** before acqui-hire.

Strategist Digital Behavior & Market Research

Deloitte Digital | San Francisco, CA | Jan 2017 - Jan 2018

Researched teen digital behavior and safety needs, informing platform interventions that increased positive interactions by **15%**.

Strategist Digital, Cultural Insights & New Business

Deutsch Inc. | Los Angeles, CA | Jan 2014 - Jan 2017

Led ethnographic and behavioral research into Latin American communities' digital trust ecosystems.

ADDITIONAL TRAINING

- **MIT Media Lab Fluid Interfaces Group** Experiments in AI generated media (Fall 2021)
AI-Generated Media for Good: Ethical design and harm reduction.
- **Artificial Intelligence: Ethics & Societal Challenges** Lund University (Online 2025)
- **Advanced Facilitation & Design Sprints** AJ&Smart (2020)

SELECTED SKILLS

Computational Methods: causal inference (IV, DiD, RD), regression, panel models, clustering, event studies, synthetic controls

NLP & AI: BERTopic, VADER, TF-IDF, embeddings, LLM evaluation, prompt engineering, RAG pipelines

Programming: Python (pandas, NumPy, scikit-learn), R (tidyverse, ggplot2), SQL, Git/GitHub, Jupyter, HEX

Systems & Tools: cloud APIs, scraping, container tools, VS Code, Google Cloud, Colab, Jupyter notebooks, RStudio, HEX

Mixed Methods: qualitative interviews, contextual inquiry, survey design, trauma-informed methods

Visualization: data storytelling, Wilke principles, executive dashboards

Qualitative: cognitive walkthroughs, survey research, desk research, digital ethnography
Languages: Spanish, Portuguese (Brazilian - novice), Italian (novice)

MY RESEARCH IN THE NEWS

- ["Twitter Launches Beta Test of Anti-Abuse Tool 'Safety Mode'"](#)
- ["Twitter Rolls Out Redesigned 'Misinformation Warning Labels'"](#)
- ["Twitter's 'Report Tweet' Update Rolls Out Globally to Make Reporting Dodgy Tweets Easier"](#)
- ["Twitter Says 'Labels and Warnings' Slowed Spread of False Election Claims"](#)
- ["Twitter's New 'Reporting Process' Centers on Human First Design"](#)