

Tom Mosher

buscandoaverroes@icloud.com • GitHub: buscandoaverroes • buscandoaverroes.github.io

VISION STATEMENT

What's after ChatGPT? The tool certainly marks countless innovations in algorithms and language; but never quite captures the nuances of creativity. Worse, lifeless digital formulas like these are slowly becoming authoritative. I'm working towards a 21st century with a better communication framework: parlay the stories of data, disadvantaged communities, and our planet into compassionate collective action. I want to create the interface that fosters mutual understanding — one that is born in words, data, and machines and, yet, articulates what lies beyond them.

EXPERIENCE

Trajectory

Tokyo, Japan

System Engineer

August 2023 - present

- Create and maintain core algorithms for a drone software start-up as a member of the Algorithm Team.
- Write new functions, debug, and test code using Go, Docker, AWS, and git.
- Liaise with frontend teams to gain a deep understanding of bugs and issues.
- Document changes and intentions with vigor, in and outside of code, in comments, PRs, and tickets.
- Navigate bilingual Japanese-English work environment and cultural differences with respect for others and myself.

Nanto City Board of Education

Toyama, Japan

English Teaching Assistant

October 2021 - July 2023

- Led English as a Second Language classes in Junior High Schools, including evaluation and lesson planning.
- Advocated for equality through the use of English across dimensions that include gender, gender-identity, ability, national origin, and sexual orientation.
- Modeled behavior essential for preventing the spread of Covid-19.
- Communicated with students in a bilingual (Japanese-English) setting to explain grammar, pronunciation, and other English content.
- Navigated and bridged cultural differences in a Japanese professional environment.
- Monitored and adjusted classroom activities on-the-fly based on students' needs and time constraints.
- Set goals for activities that were congruent with the targets set by Ministry of Education.
- Determined digital and analog modalities for classwork that considered the advantages and limitations of each technology.
- Assisted in the implementation of remote-learning and video conferencing technologies.
- Encouraged students to tackle new material by sparking intrinsic motivation and considering each student's unique story.
- Evaluated student performance using methods to ensure fairness across dimensions of ability.

WORLD BANK

Washington, DC

Research Assistant, Social Projection and Jobs

May 2021 - October 2021

- Harmonized multi-round, micro-level survey data to update and assist in maintaining the the GLD and I2D2 Global Labor Force datasets.
- Advocated for the implementation of cutting-edge tools, including Git, Atom, Shiny, and new R packages, to help resolve workflow challenges.
- Wrote an R package with custom functions and algorithms to extract data from non-machine-readable sources, streamline data processing, and automate data recovery.
- Used custom R package to clean and harmonize country-level indicators to UN and international standards.
- Documented changes to code and data quality issues on GitHub to facilitate reproducibility and transparency.
- Coordinated with other consultants to streamline troubleshooting, share code-based solutions to common technical issues, and establish concrete collaboration strategies.
- Liaised with country-level officers in National Statistics Offices to clarify terminology and dataset documentation.

- Served as a technical resource to migrate the code repository to GitHub and conducted team-wide onboarding trainings.
- Coordinated with technical experts elsewhere in the organization to develop code version-control solutions.
- Tackled technically difficult coding challenges with persistence, creativity, and a collaborative approach.
- Installed quantitative checks in code to ensure consistency of output indicators with those published by National Statistics Offices.

Research Assistant, Bureaucracy Lab and DIME

January 2020 - January 2021

- Cleaned, prepared, and harmonized micro-level survey data and external data across geographic regions for the Global Education Dashboard.
- Constructed a geolocation database that linked GPS, World Bank administrative data, household development and Bureaucracy Indicators.
- Wrote an algorithm that helped determine ideal sampling schemes by running series of Monte-Carlo simulations.
- Conducted research using primary data with guidance from Senior Economists.
- Revealed insights regarding the relationships between the quality of public bureaucracy and development indicators.
- Constructed client-facing products, including an interactive, public dashboard for the Worldwide Bureaucracy Indicators with emphasis on clear visuals.
- Created client-facing dashboards that visualized new daily data for Covid-19 Surveys of Public Officials.
- Fostered internal cooperation and developed external partnerships to spark innovation, including a collaboration with an Artificial Intelligence center at CalPoly University.
- Drafted technical reports for internal meetings amongst Senior Economists using reproducible code.

Short-Term Consultant, Gabon Poverty Analysis

April - May 2019

- Worked with a Senior Economist to draft the 2019 Poverty Assessment for Gabon.
- Wrote code to reveal patterns and discoveries from 2017 EGEP and 2018 Afrobarometer survey data.
- Synthesized results with qualitative publications to produce a cohesive narrative on the state of poverty in Gabon.

FREELANCE

Washington, DC

Independent Consultant: World Bank EAP GIL and Davis Scholarship

August 2019-Present

- Analyzed DHS microdata to reveal nuances of geographic distribution of gender-based violence in the Philippines.
- Produced ML model selection to provide insights on scholar performance. Drafted results in working paper.

DAVIS NEW MEXICO SCHOLARSHIP

Santa Fe, NM

Program Coordinator

May 2016-August 2017

- Worked with the Scholarship Administrator and Founder to create new college-access programs and expand partner institutions for first-generation college students.
- Advised students, parents, and families in a professional, bilingual environment (Spanish-English).
- Exhibited and modeled behavior conscientious to the experiences of students in a multicultural setting.
- Advocated for students' needs while maintaining professionalism and deepening partnerships with outside administrators.
- Organized a Symposium that connected local school administrators and showcased best college admissions practices.
- Case-managed 50 first-generation college students in their transition to and during college.
- Coached 20 Summer Teaching Fellows and served as member for the summer program Administrative Team.
- Advised students throughout each phase of the college application process, including test-preparation, application logistics, and post-admission procedures.
- Collaborated with technical experts in a well-known, multinational tech company to create a database for use in various Scholarship-wide applications.
- Established and conducted bilingual information seminars.
- Coordinated with fellow teachers to develop a first-time curriculum for Native Spanish Speakers.
- Created and taught a literature seminar for Native Spanish Speakers, with responsibilities that included assessment creation, evaluation, and student follow-up.

SPANISH MINISTRY OF EDUCATION

Cartagena and Córdoba, Spain

English Teacher

October 2014-May 2016

- Planned English curriculum for grades 1-12 and taught lessons in conjunction with other English Teachers.

EDUCATION

GEORGETOWN UNIVERSITY, School of Foreign Service

Washington, DC

Master of Science in Foreign Service

May 2019

- Relevant Courses: Econometrics Workshop, Impact Analysis, Advanced Econometrics, Game Theory
- Teaching Assistant: Professor Sharat Ganapati, International Trade (Master's)
- Study Abroad: Japanese immersion, *Princeton In Ishikawa* (Kanazawa, Japan)

POMONA COLLEGE

Claremont, CA

Bachelor of Arts, Religious Studies

May 2014

- Study Abroad: Spanish immersion, *La Universidad de Córdoba* (Córdoba, Spain)

Spring 2013

INDEPENDENT PROJECTS

Bikeshare (in-progress):

An interactive tool to visualize and analyze aggregate bike usage trends during the pandemic using publicly-available data from Bikeshare companies in Washington, D.C., weather data from NOAA, and geodata from OpenStreetMaps.

Covid-19 Vaccines (in-progress):

A user-friendly web-based app that explains vaccine efficacy rates and chances of protection using the actual data from clinical studies. See: <https://buscandoerrores.shinyapps.io/covid-vaccine-calculator/>

DISTINCTIONS

Languages/skills:

Human: English (native), Spanish (fluent), Japanese (profession), Italian (conversational)

Computer: Go, R, Shiny, Stata, Git(Hub), TeX, HTML, Javascript, Logic, Final Cut, SurveyCTO

Professional Ambitions: Rust, Speculative Fiction, Post-humanism, English-learners textbook

Awards and Honors: *Kakehashi* Participant (2019), MSFS Scholar (2019), Georgetown SFS Asia-Pacific Forum Board Member (2018-19), Hager Prize for Thesis in Religious Studies (2014), Best Delegate: Model EU seminar (2014)