Michael Espero

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Education

Claremont Graduate University *Post-Coursework 2020*
Ph.D. in Health Promotion Sciences - Neurocognitive Sciences, Biostatistics, and Epidemiology

Kinestry *Conferred September 2019*
Artificial Intelligence Certification Bootcamp

Claremont Graduate University *Conferred May 2019*
Master of Public Health - Biostatistics and Epidemiology; James A. Blaisdell Fellow

DataCamp *Conferred July 2017*
Tracks Completed - Programmer, Analyst, Statistician, and Data Scientist Courses: 80+

San Jose State University *Conferred May 2010*
Bachelors of Arts - Global Studies

Skills

Global Presentation	American Statistical Association, JSM: Data Science for Good
Languages/Tools	R, SQL, SAS, Python, Julia, and agentic LLMs in the command line
ML/Deep Learning	Short/long-term forecasting, regression, classification, and clustering
Statistics	Interval estimation, causal modeling, psychometrics, and factor models
Front-End/DevOps	Shiny/Posit Connect, Github/CI/CD, AWS (EC2, S3), and orchestration

Select Experience

Perception Interval May 2025 - Present
Founder/Principle Data Scientist

· https://perceptioninterval.com

Centene April 2022 - May 2025
Senior Data Scientist (III)

· Machine learning/statistics, evaluation, interpretability, probabilistic forecasting, and mentorship
· Interactive web applications (R Shiny) development (updated daily)
· Fail-safe data ingestion (0.5B-1.5B rows), wrangling pipelines, web scraping, and visualization
· Jupyterhub (Linux), AWS S3, Posit Connect, and local environment (Windows)

Los Angeles County Department of Public Health October 2020 - March 2022
Epidemiologist — Data Science Team

· Led team (Outbreak Management - SQL Server Team) producing complex reproducible reports (delivered 7 days a week) with R, SAS, and SQL.
· Develop and maintain data wrangling pipelines for all LA County Schools COVID-19 data
· Develop dashboards including interactive visualizations, tables, descriptives, and inferential statistics.

CGU, Public Health/Math December 2020 - Mid 2021
Researcher

· Leverage open-source natural language processing libraries to build tabular time-series from unstructured text.

· Apply AI for predictive models and contribute to the implementation of parameterized models.

Statistics Without Borders March 2019 - Per Engagement
Volunteer Staff

· Led a distributed team of data scientists on an NLP project concerning COVID-19, presenting the process of supporting an emergency response client at the 2020 Joint Statistical Meeting (remote).
· Develop reproducible data science reports concerning the status of 1000 students in 4 countries.

CGU, School of Community and Global Health May 2020 - August 2020
Graduate Teaching Assistant

· Provided lectures, statistical support, and grading to doctoral-level students.
· Topics: Mediation, conditional process modeling, growth curves, multinomial regression, mixed effects

CGU, Transdisciplinary Studies May 2020 - August 2020
Graduate Teaching Assistant

· Provided lectures, statistical support, and grading to doctoral-level students.
· Topics: dimensional reduction, dealing with missing data, visualization, time-series data wrangling

Pomona High-Performance Computing Unit June 2019 - October 2020
Support

· Leveraged supercomputers (remotely) for natural language processing
· Presented on H2O Driverless AI and visualization with ggplot2

CGU, School of Community and Global Health January 2019 - May 2019
Researcher

· Fit generalized low-rank models, Bayesian mixed effects models, and gradient boosting machines to explain and predict longitudinal responses to breast cancer treatments.
· Contribute to primary data collection, data processing, and the generation of reports and presentations.

Human Working Memory Lab Jan 2018 - Dec 2018
Researcher

· Developed experiments concerning working memory, cognitive control, and physical exercise.
· Built cognitive tasks, collected human subject data, transformed task data into csv files, analyzed data via reproducible pipelines, and summarized results in scientific papers.

Claremont Collegiate Apartments June 2016 - August 2020
Community Adviser

· Helped a diverse community of over 200 students live and work in a safe environment conducive to learning and positive well-being.
· Facilitated resident on-boarding and orientation while also deescalating and resolving resident conflicts.

Deloitte April 2013 - August 2013
One Team Lead

· Observed and documented operations management and internal customer services strategies such as IT and document processing at a leading branch for introduction to operations at a developing branch.
· Developed nationally distributed web conference materials targeted to fulfill gaps in change management by broadening the scope and reclassifying the jobs of operations employees.

Studiomix November 2011 - April 2013
Cofounder

- Hired and managed a team of practitioners to offer new programs, classes, and health coaching.
- Served and helped grow a diverse community of over 1,000 members through marketing, events, and organizational development strategies focused on client input and interation.

Preprints

The Inflammatory Cascade Through Discrimination, Socioeconomic Status, and Body-Mass Index
Link

Receptive Vocabulary Performance Varies with Depression
Link

Genetic Prediction of Parkinsons Diagnosis: Firth to Ensemble Learning
Link

The Prognostic Value of Genetic Architectures in Cognitive Decline
Link

Heterogeneity In Multimodal AI Feature Engineering Utility For Explaining Change In Dementia
Link