DIEGO ALEJANDRO GOMES

gomes-diego.github.io| gomesadiego@gmail.com

EDUCATION

KU Leuven | Master of Science in Statistics and Data Science, Biometrics, *cum laude*   Sep 2023
UC San Diego | Bachelor of Science in Cognitive Science with Specialization in Neuroscience   Jun 2017

SKILLS

5+ years analyzing large-scale & high-dimensional data	SQL querying to extract & transform data
Proficient in Python (Pandas, NumPy, Scikit-Learn, etc.)	Power BI dashboards, modeling, visuals
Statistical analyses & visualizations in R (tidyverse, ggplot2, etc.)	Bilingual: Fluent in English and Spanish

WORK EXPERIENCE

DATA ANALYST   2024 – Current
SoundTalks | Boehringer Ingelheim, Belgium (Remote)

- Maintained animal respiratory disease monitoring dashboards, optimized queries using Power BI. Validated and tested database integrations/migrations. Applied Power Query (M) and DAX to monitor & visualize KPIs
- Created and devised a Power BI dashboard that leverages SharePoint, Power Apps, Power Automate, and Row-Level Security (RLS) to improve client satisfaction and enhance the company's competitive advantage
- Trained and introduced new data analysts to ETL and star schema modeling procedures, ensuring consistency and continuity in data management practices

SENIOR RESEARCH ASSOCIATE   2018 – 2021
Adolescent Brain Cognitive Development (ABCD) Study, UC San Diego

- Administered clinical neurocognitive interviews, gathered biological samples, operated MRI scanner, and ensured high quality data collection for a 10-year longitudinal study with 11,800 participants across the U.S.
- Promoted to a senior position; supervised and trained new research assistants. Piloted and created standard operating procedures for a novel sub-study used by over 200 research assistants across 21 sites
- Collaborated with university postdocs and associate professors, generated statistical analyses and data visualizations for large-scale high-dimensional longitudinal data using R, prepared and reviewed academic manuscripts. Achieved publication in a peer-reviewed journal.

RESEARCH ASSISTANT   2016 – 2017
Swartz Center for Computational Neuroscience, UC San Diego

- Analyzed and collected continuous and mobile EEG and EMG data using event-related statistical tools in MATLAB
- Assisted in a pilot study for EEG-based brain-computer interface (BCI) with US Army Research Labs (ARL)

RESEARCH ASSISTANT   2016 – 2017
Research on Autism and Development Lab, UC San Diego

- Conducted novel eye-tracking interventions and collected EEG and neurocognitive data from autistic adolescents and young adults
- Extracted and cleaned data to generate descriptive statistical reports using SPSS and Microsoft Excel

UNDERGRADUATE RESEARCH ASSISTANT   2015 – 2016
Kutas Cognitive Electrophysiology Lab, UC San Diego

- Collected, analyzed, and validated raw EEG data from neurolinguistic studies using Linux and MATLAB
- Presented findings at the UCSD Undergraduate Research Conference: *Using Logical Metonymies to Unravel Semantic Processing,* Brooke, S., **Gomes, D.,** McGeorge, B., (Apr 2016)

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ADDITIONAL EXPERIENCE

MASTERS THESIS   2021 – 2023
KU Leuven & UZ Leuven, Research Group Ophthalmology (RGO), Belgium
Combining hyperspectral imaging features with retinal metrics to screen for Alzheimer's disease (An applied machine learning and longitudinal mixed model approach)
Promoters: Prof. Dr. Ingeborg Stalmans & Prof. Geert Molenberghs
- Extracted, cleaned, and integrated clinical imaging and neurology data from multiple sources; conducted a supervised machine learning analysis using R
- Created an annotation interface and optimized a pre-processing pipeline using Python and Jupyter Notebooks, significantly increasing the RGO's image labeling capabilities, data quality monitoring, and study sample size
- Performed a longitudinal mixed model analysis in SAS

RELEVANT COURSEWORK   2021 – 2023
KU Leuven, Master of Statistics and Data Science Program, Faculty of Science, Belgium
- Data Management: Querying and modeling databases (i.e. PostgreSQL, NoSQL, MongoDB, Neo4j), Machine Learning & Inductive Inference, Generalized Linear Models, Statistical Consulting, Data Science for Business
- Collecting and Analyzing Big Data for Social Science: *Evaluating the Impact of Generalized Prejudice on Monkeypox.* Scraped geocoded tweets via Twitter API, conducted sentiment analysis using several NLP techniques
- Modern Data Analytics: *The Pandemic in Prison: Analyzing the Evolution of COVID-19 through the Lens of the United States Prison System.* Ingested data from The Covid Prison Project API, modeled graph database relationships using Neo4j, applied XGBoost for regression and ranking analyses

CONVERSATIONAL AI INTERNSHIP   May 2023 – Oct 2023
Campfire AI, Research & Development Team, Brussels, Belgium
- Participated in a voluntary student internship and became familiarized with leading-edge NLP and generative AI and large language model (LLM) industry practices for chatbots using Chatlayer, Miro, and OpenAI API

LEADERSHIP

LEAD WORKSHOPS   2022 – 2023
Emergent Leuven, Data Science & AI Student Organization, Belgium
- Organized and led 8 hands-on technical workshops on data science and AI topics, coordinated outreach to local companies to host 2.5-5 hour sessions. Managed logistics, budgeting, technical issues, topic selection, marketing, and public speaking efforts resulting in several sold-out workshops and increased career opportunities for students

INSTRUCTIONAL ASSISTANT   2017
Cognitive Science Department, UC San Diego
- Provided academic support as an undergraduate instructional assistant for two university courses, proctored exams, led weekly lab sessions and office hours, and graded assignments/exams for *Neuroanatomy and Physiology* and *Systems Neuroscience.*

HONORS & AWARDS

Post-Baccalaureate Summer Fellowship Award, Temporal Dynamics of Learning Center, UC San Diego   2017

PUBLICATIONS

- Aguinaldo, L.D., Coronado, C., **Gomes, D.**, Courtney, K., &. Jacobus, J. (2022). Application of the RDoC Framework to Predict Alcohol Use and Suicidal Thoughts and Behaviors Among Early Adolescents in the Adolescent Brain and Cognitive Development (ABCD) Study. *Brain Sciences.*