Juan José Aguado

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Education

Pontificia Universidad Javeriana Cali, VA

Systems and Computer Engineering (Computer Science) *Aug. 2020 – Jun. 2025*

Experience

Tasker - Generative AI Models Jun. 2024 – Present

Outlier *Remote*

- Evaluated the performance of generative AI models (text, audio, image) based on criteria such as precision, instruction-following, and safety.
- Conducted evaluations in English, ensuring a high standard of language proficiency and communication in reports.
- Provided feedback on model's outputs, helping improve their accuracy and compliance with security protocols.

Database Administrator Jan. 2024 – Jun. 2024

Fundación Casa de Colombia *Cali, VA*

- Spearheaded the design, creation, and deployment of a comprehensive database for a software solution aimed at streamlining operations at Casa de Colombia.
- Developed and maintained PostgreSQL databases to efficiently manage and store crucial information, supporting the provision of essential health and education services to children.
- Utilized Jira for project management and issue tracking, ensuring efficient workflow and task management.
- Employed Git and Bitbucket for version control and collaborative development, maintaining a robust and organized codebase.

Research Assistant - Applied Software Engineering Research Group Jun. 2024 – Present

Pontificia Universidad Javeriana *Cali, Colombia*

- Working on the university's automatic email sending service. Developed and modified functionalities using Java and Maven.
- Utilized Postman to test and validate API endpoints for automated email delivery.
- Collaborated with teams to enhance email service performance and maintainable code structure.
- Integrated solutions and performed troubleshooting on email service errors and logs to improve user experience.

Data Scientist Oct. 2024 – Present

Atinna *Cali, Colombia*

- Developing social listening systems by consuming and transforming large datasets using Python, Git, Hugging Face, and OpenAI.
- Applying NLP techniques for advanced sentiment and emotion analysis, providing valuable insights for businesses.
- Creating interactive visualizations, dynamic maps, and strategic reports to support data-driven decision-making.
- Automating data extraction through web scraping, ensuring effective data cleaning and preprocessing.
- Optimizing collaborative Git workflows to enhance team productivity and code quality.

Projects

UVa Programming Problems | *Python* January 2023 – June 2023

- Solved numerous programming problems from the UVa Online Judge, a platform hosted by the University of Valladolid with over 4300 problems.
- Utilized various data structures such as arrays, linked lists, trees, queues, and graphs to optimize solutions.
- Implemented algorithms including bisection, binary search, backtracking, dynamic programming, and greedy algorithms to solve complex problems.
- Gained deep understanding of problem-solving techniques and algorithm optimization through continuous practice and refinement of solutions.

Statistical Analysis and Data Science Projects | *R, Markdown* January 2024

- Conducted comprehensive analysis of the real estate market in Cali, Colombia, using data from B&C real estate agency, focusing on property prices, locations, features, and sales.

- Preprocessed and cleaned real estate data, analyzed descriptive statistics, and created visualizations to communicate findings effectively.
- Performed various statistical simulations, including Monte Carlo Simulation to estimate the value of π, and analyzed bias, efficiency, and consistency of different estimators.
- Verified the Central Limit Theorem through simulations, observed its implications on sample distributions, and constructed confidence intervals using bootstrap methods.
- Built multiple linear regression models to predict real estate prices based on the area, validated model assumptions, performed hypothesis testing, and compared models to find the best fit.
- Developed a deep understanding of statistical analysis and data science techniques using R, enhancing skills in data manipulation, visualization, and modeling.

Courses

HarvardX CS50 | *Django, HTML, Git, CSS, Javascript, SQL* April 2024

- Developed a full-stack web application using Django, implementing both the backend with RESTful APIs and the frontend with HTML, CSS, and JavaScript.
- Utilized Git and GitHub for version control and collaboration, ensuring efficient project management and code integrity.
- Implemented interactive features and dynamic content using JavaScript for seamless user experience.
- Designed and managed relational databases with SQL, ensuring data integrity and efficient query handling.
- Applied best practices in web security, testing, and deployment, ensuring robust and reliable applications.

Skills

Programming languages: Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, R, Java
Frameworks: Django
Developer Tools: Git, Docker, VS Code, PostgreSQL, Jira, Bitbucket, RStudio, VirtualBox, Google Colab, Eclipse, Maven
Libraries: pandas, NumPy, Matplotlib, Seaborn, SciKitLearn, Hugging Face, OpenAI
Languages: spanish (native), english (advanced)