

# Rafael García – Data Scientist & Software Engineer

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## EDUCATION

**University of Michigan – Ann Arbor**

**Ann Arbor, MI**

*Degree: Master of Science in Data Science*

*Dec 2023*

**University of Wisconsin - Madison**

**Madison, WI**

*Degree: Bachelor of Arts in Statistics, Mathematics, and Computer Sciences*

*May 2021*

## PROFESSIONAL EXPERIENCE

**Dreamline AI, Remote**

*Mar 2024 – Present*

**Lead Software & ML Engineer**

- Used Python to develop, test, and maintain machine learning applications designed to optimize businesses' energy expenditure.
- Used JavaScript and Node.js to create front-end and back-end solutions to enhance integration among services.
- Used Docker to guarantee the portability and scalability of services.
- Used SQL and data science libraries to optimize data retrieval, storage, and model integration.
- Served as a team lead, responsible for coordinating the work of developers to ensure project success.

**Advanced Skills:** Machine learning, Docker, Node.js, SQL

**University of Michigan, Ann Arbor, MI**

*Jan 2023 – Dec 2023*

**Graduate Student Instructor and Mentor**

- Instructed and assessed college-level applied statistics to University of Michigan students.
- Developed and implemented interactive, inclusive, and engaging instructional lessons to facilitate effective learning experiences.
- Employed QA platforms, automated attendance tracking technologies, and interactive audiovisual platforms to enhance the efficiency and effectiveness of class logistics.
- Tutored and mentored incoming graduate instructors in effective teaching practices.

**Advanced Skills:** Data visualization, probability, inferential and descriptive statistics, R

**American Family Insurance, Madison, WI**

*Oct 2021 – July 2022*

**Application Development Engineer**

- Used Java to develop & rigorously test RESTful Spring microservices, resulting in a 12% improvement in backend service efficiency.
- Utilized SCRUM to deliver project milestones on two-week sprints. More than 95% of tickets resolved within their sprint.
- Broke down and evaluated user problems using test scripts, personal expertise, and probing questions.

**Advanced Skills:** REST, SCRUM, troubleshooting, software quality assurance

**Division of Information Technology at UW Madison, Madison, WI**

*Oct 2019 – May 2021*

**Software Developer**

- Used React.js, Node.js, PHP, and SQL to work on the division's main resources, scheduling, and analytics framework.
- Revised, modularized, and updated legacy code using modern development standards to reduce operating costs by 3% and improve latency by 7%.
- Developed three efficiency applications from scratch, employing a market-focused approach, to minimize waste and streamline the implementation cycle.

**Advanced Skills:** Visualization, data modeling, algorithm design, databases, optimization

## PROJECTS

**Cryptocurrency price predictor** (*Skills: R, Docker, Machine learning*)

[GitHub](#)

- Predicted Bitcoin price fluctuations in the next 24 hours with 87% accuracy using 6-hour intervals.
- Features a Docker image for arbitrary environment deployment.

**Yelp rating predictor** (*Skills: R, Regression analysis, multithreading*)

[GitHub](#)

- Predicted customers' Yelp star ratings with a mean squared error of 0.88 using previous reviews.
- Extended the capabilities of functions, such as mapply, to enable the execution of multiple threads.

## SKILLS

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Programming:	Python, C, C++, Java, JavaScript, Node.js, React.js, SQL (sqlite3, mysql, postgresql), R, Matlab, Jupyter Notebook, Firebase, Docker/Podman, Bash/Zsh, Markdown, HTML, CSS, XML, LaTeX, SAS, matplotlib, Express.js, Ggplot2, Plotly, D3.js, Spring, SCRUM, REST, Hadoop, Spark, STAN, SKLearn, Numpy, Pandas, Seaborn, Matplotlib, pyGAM, SciPy, SLURM, Tableau, Redis, ServiceNow
Cybersecurity:	Metasploit, SQLMap, Nmap, Wireshark, Ghidra, Hydra, Wappalyzer, Fuzzing, CVEs, OSI model, reverse engineering, reconnaissance, exploitation, post-exploitation, networks, web, mobile, generating reports, cryptography
Version Control:	Git (Hooks, GitHub, GitLab, and custom servers), Image version control (Docker/Podman)
Machine Learning:	TensorFlow, Keras, PyTorch, Google Colab, computational modeling
Math & Statistics:	CNN, DNN, NN, algorithm analysis, regression, multivariate statistics, non-parametric statistics, time series analysis, linear optimization, linear algebra, advanced probability, combinatorics, real analysis, stochastic processes, Bayesian inference
OS:	Linux (Debian, Arch, Alpine), Windows, MacOS
Languages:	English (fluent), Spanish (fluent), Portuguese (fluent), German (B1 certified)