J. Rafael García

(608) 618-3370 | rafael.garcia@wisc.edu | LinkedIn | GitHub | Website | Madison, WI

SUMMARY

Results-driven developer with experience in statistical modeling and data analysis. Experienced in implementing and analyzing appropriate low variability models to predict customer ratings, stock price trends, market volatilities, and patients' life expectancy. Able to create elegant visualizations and rigorous data analysis reports.

EDUCATION

University of Wisconsin - Madison   **Madison, WI**

Degree: Bachelor of Arts in Statistics, Mathematics, and Computer Science (GPA: 3.58)   *May 2021*

Strong focus on artificial intelligence, data science, and statistical methods.

Achievements: Excelled in machine learning, data science, regression analysis, programming, calculus coursework, machine learning and data analysis projects in fields such as biology, medicine, finance, and economics.

PROFESSIONAL EXPERIENCE

Division of Information Technology at UW Madison, *Madison, WI*   *Aug 2018 – May 2021*

Software Developer (Oct 2019 – May 2021)

- Developed 2 software applications for statistical modeling and graphic analysis to understand data and drive accurate insight using R shiny and JavaScript
- Revised, modularized, and updated legacy code using modern development standards to reduce operating costs by 3% and improving latency by 7%
- Developed 3 programs from ground up using the market-focused approach to eliminate waste and streamline implementation cycle

Advanced Skills: visualization, modeling, algorithm design, databases, optimization

IT Helpdesk Representative (Aug 2018 – Oct 2019)

- Diagnosed 600+ hardware problems to fix systematic faults and contacted appropriate repair service
- Patched software and installed new versions to eliminate security problems by 13%
- Broke down and evaluated user problems using test scripts, personal expertise, and probing questions

Advanced Skills: troubleshooting, partnering, communication, negotiating, testing

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
- Deployed the code for any machine through a custom Docker container

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
- Modified functions such as mcapply to run multiple threads

Pyshred *(Skills: Python, Cybersecurity, multiprocessing, testing)*   *GitHub*

- Implemented Gutmann's 35 pass method to simplify the process; tested on Linux, MacOS, and Windows
- Extended the version of Unix's shred command to make it flexible

ACHIEVEMENTS & AWARDS

- Improved boot efficiency of Linux's servers by 40% by implementing appropriate bash boot scripts
- Implemented time series models (GARCH + ARIMA) for trading crypto currencies to boost profit by 25%
- Automated enterprise systems using scripting languages to save 2 hours of work per week
- Assembled a high school's rugby team to won regional championships in 5 months

SKILLS

Programming:	R, SQL (sqlite3 & mysql databases), Python, Jupyter Notebook, Java, Javascript, Firebase, Docker, Bash, Markdown, HTML, CSS, XML, LaTeX, SAS, C, C++, pandas, matplotlib, React.js, Node.js, and Express.js
Version Control:	Git (Hooks, GitHub, GitLab, and custom servers)
Machine Learning:	TensorFlow, Google Colab, computational modeling
Math & Statistics:	CNN, algorithm analysis, regression, multivariate statistics, non-parametric statistics, time series analysis, linear optimization, linear algebra, advanced probability, cryptography, combinatorics, real analysis, stochastic processes
Data Visualization:	Ggplot2, Plotly, D3.js