

J. Rafael García

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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

PROFESSIONAL EXPERIENCE

American Family Insurance, Madison, WI

Oct 2021 – Present

Application Development Engineer (Oct 2021 – Present)

- Developed and tested REST Java Spring microservices to improve backend efficiency of services by 12%
- Utilized SCRUM to deliver project milestones on 2-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, testing

Division of Information Technology at UW Madison, Madison, WI

Oct 2019 – May 2021

Developer

- 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

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 mapply to run multiple threads

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

[GitHub](#)

- Implemented Gutmann's 35 pass method in Python; tested on Linux, MacOS, and Windows
- Extended 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, Express.js, Ggplot2, Plotly, D3.js, Spring, SCRUM, REST
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
Languages:	English (Fluent), Spanish (Fluent), German (B1 Certified)