Rian Koja

Aerospace Engineer, Software Developer

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Professional Summary

I've graduated and started my career as an Aerospace Engineer, specializing in Navigation, Guidance, and Control Systems with a special interest in mathematics. I've always worked with development, validation and deployment of software systems, in research and development contexts. I moved to the finance industry in 2022 where I've employed past and new skills in quantitative finance, designed and implemented automated systems for data acquisition and trading, developed quantitative models, and collaborated with cross-functional teams to integrate technology and research. Through my career, I've been regarded as a committed, reliable and trustworthy professional, often being given access to sensitive data and systems.

Professional Experience

Jun 2022 – Jul 2025 **Partner, Developer and Researcher**, *ASQ Asset Management*, São Paulo, Brazil
- Designed and deployed the first generation of automated systems for data acquisition and trading.
- Developed and implemented quantitative models for volatility forecasting based on literature research, custom alternative data and proprietary developments.
- Researched methodologies for comparing forecasting methods and for model selection with statistical rigor.
- Oversaw risk management processes, including automated setup of risk management systems.
- Collaborated with research and engineering teams to automate data pipelines and model deployment.

Oct 2013 – Jun 2022 **AOCS Engineer, Space Systems Engineer**, *Visiona Tecnologia Espacial S.A.*, São José dos Campos, Brazil
- Developed flight dynamics software and mission analysis reports for nanosatellite missions.
- Automated testing and validation of attitude and orbit control systems using Matlab, Simulink and bash.
- Supported contract management and technical documentation for major Brazilian space projects.

Apr 2013 – Jul 2013 **Research and Development Intern**, *SBG Systems S.A.S.*, Paris, France
- Designed and tested self-calibration and navigation algorithms on Matlab.

Feb 2006 – Dec 2006 **English Teacher**, *Fisk School of Languages*, São Paulo, Brazil
- Taught English language classes at Marajoara's unit to students of varying levels.

Education

2016–2019 **Master of Engineering, Space Mechanics and Control**, *Instituto Nacional de Pesquisas Espaciais (INPE)*, São José dos Campos, Brazil

2009–2013 **BSc in Aerospace Engineering, Specialization: Navigation, Guidance and Control**, *Instituto Tecnológico de Aeronáutica (ITA)*, São José dos Campos, Brazil

2012–2013 **Exchange Program, Space Systems, Automation and Control**, *École Nationale Supérieure de l'Aéronautique et de l'Espace (SUPAERO)*, Toulouse, France

Technical Skills

Programming	Python, Rust, R, Bash, C, C++, Matlab, SQL, Mathematica
DevOps	Terraform, Docker, Docker Compose, Git, Prefect, Dagster, Task Scheduler, Cron, GitHub Actions, GitLab CI/CD, NextCloud
Data Science	Pandas, Polars, NumPy, SciPy, scikit-learn, Statsmodels, Keras
Engineering	Navigation, Guidance and Control Systems, Attitude and Orbit Control Systems, Flight Dynamics
Academic	Quantitative Finance, Machine Learning, Time Series Analysis, Statistical Modeling, Forecasting
Other	Simulink, Matlab and Simulink Coder, LaTeX, Linux, Cloud Infrastructure, AWS, STK, SaVoiR, ComfyUI, PostgreSQL, MariaDB, Grafana

Languages

Portuguese	Native
English	Fluent
French	Fluent
Spanish	Functional
German	Beginner

Hobbies

Lottery Numbers Project	Developed a Rust project available on GitHub to select lottery numbers using combinatorial and behavioral principles, optimizing for partial wins and payout rates. The project ensures no two games share three numbers and avoids commonly picked low numbers, increasing the chance of unique prizes. Currently with 49 stars on GitHub.
Self-hosting	I maintain a home server with several self-hosted services, such as file backup and media streaming services, focusedon privacy, reliability, and automation.
Gym	I consistently practice muscle gain exercises and minimal aerobics, prioritizing health and discipline over competition.