

Alejandro Moral Aranda

Data Science and Web Development

I enjoy coding and mathematics, and I like to build efficient backend systems. I'm focused on creating robust APIs and scalable solutions while continually learning about frontend integration.

### Contact Me



+34 675949628



alejandromoralcontact@gmail.com



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### **Bachelor of Computer Science** University of Malaga

Sep. 2019 - Sep. 2023

Relevant Coursework: Software Development, Operating Systems, Algorithms, Cloud Infrastructure, Microservices Architecture, Database Systems, Mathematics, Hardware, and Web Development.

### Bachelor in Data Science **IU International University of Applied Sciences**

Sept. 2023 - Sep.2026 (In progress)

Relevant Coursework: Advanced Calculus and Linear Algebra for Data Science, Mathematical Statistics and Inferential Techniques, Stochastic Modeling, Optimization Techniques, Advanced Data Mining, Machine Learning and Algorithmic Design and High-Dimensional Data Visualization

#### Coding Programme 42 Luxembourg Coding School

April. 2025 - Present (In progress)

Relevant Coursework: Programming, Collaborative Software Development, C, Shell Scripting..



## Work Experience

### Polymarket Arbitrage/Trading

2024 - Present (1 Years)

Developing quantitative trading strategies on the Polygon network focused on binary outcome contracts (CTF) using statistical arbitrage. Smart contracts, fast discount events, web scraping, and API/WebSocket integration to optimize execution.

## Data Scientist (Github)

I specialize in data science, applying statistics and applied math to finance. I have hands-on experience using REST APIs, WebSockets, and some web development knowledge. Knowledge in VBA and PowerShell for automation, I am currently focused on developing scalable, data-driven projects using Python and JavaScript.

Skills	
Python (Backend,Data Science)	
PowerShell	
R	
Node.js/JavaScript	
С	
HTML & CSS	
VBA	











Chess

Maths

Anime

Coding

Football





Spanish (Native) (Fluent)









Japanese (Basic)

(Basic)



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(Online CV) https://alemxral.github.io/cv/

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# **PROJECTS**



## Arbitrage of Binary Outcome Contracts in the Polygon Network

Development of arbitrage models and strategies for binary outcome contracts on the Polygon Network using Polymarekt order books, WebSocket, and API. The system centers on a custom Exchange contract that enables atomic swaps between binary outcome tokens (CTF ERC1155 and ERC20 PToken) and collateral (ERC20).

Python/Trading/Networks

Predicting Market Openings using LOOCV Cross-Validation k-Nearest Neighbors with Asymptotically Optimal Weights

Alejandro Moral Aranda

March 8, 2025

### Research Papers

A collection of research papers that I have authored on topics related to finance and data science.

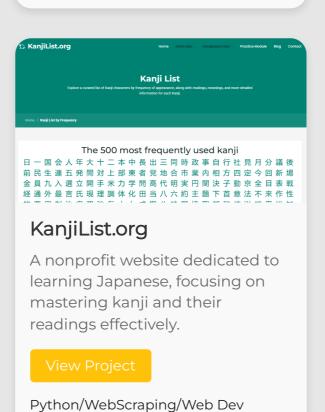
Data Science

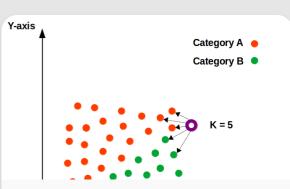


## **TareaFlow**

A web-based solution with a simple internal PowerShell server that includes a Team Task Tracker, Team Holidays, and Work From Home management tool—all running locally on your localhost with no installation required.

Powershell/JavaScript

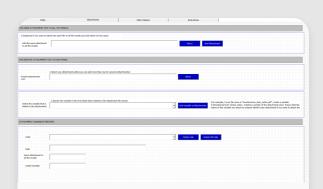




## Algorithmic Trading

Trading strategy for predicting market open direction using Leave-One-Out Cross-Validation and k-Nearest Neighbors with asymptotically optimal weights.

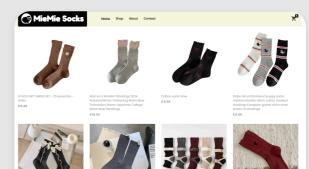
Python/Data Science



### **VBA Automated Reporting Tools**

Three advanced tools in Visual Basic for Applications (VBA) designed for large-scale email and report generation. Automate the creation of custom reports using templates configured in Word, Excel, or email formats to meet diverse reporting needs.

Visual Basic for Applications (VBA)



## **MieMieSocks**

A sleek online shop mockup designed for selling stylish socks, developed using Bootstrap and Node.js.

Node.js/JavaScript