Miguel Elias Gonzalez Manjarrez

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01 Profile

Software Engineer with 6+ years as a software engineer in financial services and cloud infrastructure. Passion for finance, crypto, and prediction markets. I enjoy exploring technical analysis, monetary policy, and the intersection of markets and technology. Always looking for opportunities to build and contribute in the finance and trading space.

02 Work Experience

Senior Software Engineer
American Century Investments
03/2025 Guadalajara, Mexico
- Developed fraud detection machine learning models in Python using pandas and scikit-learn, analyzing account activity, trading behavior, transaction patterns, and relationships between users to identify suspicious behavior.
- Led the API migration from MuleSoft to Spring Boot, modernizing ACI's integration layer.
- Migrated client- and server-side Java applications to Spring Boot 3, Java 21, and current ecosystem frameworks.
- Monitored production services via Datadog; participated in on-call rotations, performed root-cause analysis, remediated Armor code vulnerabilities, and managed certificate rotations.
- Deployed and maintained applications on OpenShift using Argo CD for CI/CD pipelines and CyberArk for secrets management.
- Worked with AWS S3, Aurora, Couchbase, SQL Server, Oracle, and PostgreSQL across multiple production workloads.
- Validated service contracts and regression-tested APIs using Postman and Bruno.

Senior Software Engineer
USAA
02/2024 – 03/2025 Guadalajara, Mexico
- Maintained and enhanced bank and financial data pipelines using Oracle SQL, dbt, and Snowflake.
- Built, migrated, and enhanced Java Apache Kafka consumers and producers for event-driven data flows.
- Migrated client- and server-side Java applications to Spring Boot 3.x, Java 17, and new frameworks.

Software Engineer
Bluecat Networks
11/2022 – 11/2023 Guadalajara, Mexico
- Designed and implemented DNS and DHCP management systems for on-premise and cloud environments using Java, Python, and Go.
- Worked with Hibernate and PostgreSQL to introduce new features and rectify database-related issues.
- Managed AWS networking infrastructure (VPC, subnets, security groups, gateways).
- Supported infrastructure upgrades, key rotations, vulnerability patching, and OS patching for the DNS and DHCP management applications.

Software Engineer
Oracle
03/2020 – 11/2022 Guadalajara, Mexico
- Maintained and enhanced RESTful API backend, client-side, and server-side applications in Java, Go, and Python.
- Managed and enhanced an Elasticsearch-DB-as-a-service API application that let users create, modify, and update Elasticsearch instances.
- Developed tooling in Terraform to streamline deployment of cloud infrastructure and microservices across multiple cloud tenancies and regions.
- Administered the deployment process, production infrastructure (Kubernetes), and monitoring systems (Grafana/Oracle Metrics API).
- Created dashboards and UIs in NodeJS for displaying Elasticsearch cluster data.

Software Engineer, Intern
HP
03/2019 – 02/2020 Guadalajara, Mexico
- Used pandas and NumPy to transform data from multiple data sources and integrate it into target database migrations.
- Created and maintained Microsoft SQL Server databases, stored procedures, and SSIS ETL packages to support internal applications and report generation.

02 Work Experience

- Collaborated with the engineering team to implement a web application for updating and visualizing supply chain data for non-development teams using Jenkins, C#, and ASP.NET.

Software Engineer, Intern
Technicolor
11/2017 – 11/2018 Guadalajara, Mexico
- Designed and maintained reusable Python and JavaScript automation scripts that replaced manual administrative processes.
- Data processing of transaction and order data PDF files, Excel files, text files and databases with Pandas and Numpy.

03 Projects

Custom Private Metasearch Engine ↗ search.eliasmanj.io
- Built a private metasearch engine with customized plugins and engines, aggregating unstructured results from various search services and databases.
- Deployed a working search instance accessible over HTTPS.

Sports Betting Arbitrage and Opportunity Dashboard ↗ github.com/EliasManj/arbitrage-dashboard
- Ingested odds and market data from Polymarket, Playdoit, and Teammexico, grouping bookmaker data by fixture and building the best available odds for each compatible market outcome.
- Estimated no-vig joint fair probability for logically related markets (home win + over goals, home win + BTTS) with a modest positive-correlation adjustment, applying fair value estimation to price combined outcomes.
- Surfaced only combinations with a positive expected edge as candidate alpha signals.

Budget Finance Dashboard ↗ github.com/EliasManj/budgets-visualization
Tracks income, expenses, savings, budgets, cash flow, spending categories, monthly trends, and key financial metrics in one dashboard.

Limit OrderBook Implementation ↗ github.com/EliasManj/limit-orderbook
Implementation of a trading order book matching engine for limit orders written in Go. Support for Market, FillOrKill, FillAndKill, and GoodTilCancelled order types.

04 Education

Electronics and Computer Engineering | Bachelor of Engineering
Tecnológico de Monterrey, Campus Guadalajara (ITESM)
08/2015 – 12/2019 Guadalajara, Mexico

05 Technical Skills

PROGRAMMING LANGUAGES		
Python	Java	Go
TypeScript		
DATA SCIENCE & RESEARCH		
pandas	NumPy	scikit-learn
backtesting.py	TradingView Scripting	Unstructured Data Processing
Polymarket		
FRAMEWORKS & LIBRARIES		
Spring Boot	NodeJS	
DATABASES & DATA PLATFORMS		
PostgreSQL	Snowflake	Elasticsearch
Apache Kafka	SQL Server	MySQL
CLOUD & DEVOPS		
AWS	Oracle Cloud	Docker
Terraform		