Gacoka Mbui

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EDUCATION

Minerva University
BSc in Computer Science (Ongoing)

09/2019 - 05/2023 *San Francisco, California*

Concentration and Minor

- Concentration in Data Science and Statistics
- Concentration in Computer Science and Artificial Intelligence

EXPERIENCE

Accelerate: Talent Identification Program
International Business Machines Corp. (IBM)

05/2021 - 08/2021 *Remote*

Achievements/Tasks

- Participated in an undergraduate internship that offers high potential undergraduate students a virtual learning experience delivered through weekly live sessions over eight weeks during the summer.
- During the program, my team and I created a series of full stack applications using React, Material UI and NodeJS.

Program Participant
Google SPS (Software Product Sprint)

02/2021 - 04/2021 *Remote*

Achievements/Tasks

- Participated in an invite-only virtual internship by Google for technical career development and open-source development.
- During the program, my team and I created a dynamic website hosting my portfolio using Java servlets and the Google Cloud Platform as well as collaborated on a technical idea using Github that was presented to Google engineers.

Cornerstone Coding Peer Tutor
Minerva University

09/2019 - 12/2019 *San Francisco, CA*

Achievements/Tasks

- Involved in a leadership role of supervising coding structured study sessions consisting of 2 groups each 8 students coded in Python, holding drop-in office hours, and grading weekly coding lab exercises to track student progress.

LANGUAGES

Golang | Python - Django and Numpy | React | R Programming | Bash | Javascript | SQL

PERSONAL PROJECTS

CySuite.io (06/2021 - Present)

- **Summary**: CySuite is a full-stack web-security tool for vulnerability assessment through source code analysis. The platform uses Code Property Graphs to deconstruct code into its abstract syntax, program dependencies, and control flow for efficient and comprehensive querying.
- **Technologies**: The website's frontend is developed using HTML, CSS and Javascript while the backend uses the Django Framework. The API is created using Django's REST Framework. User data is stored on a remote PostgreSQL database while the code property graph is stored on the graph database Neo4J.
- **Statistics**: The website is hosted on Heroku and implements containerization for scalability purposes. The web app currently has 10 business users with a projected 5 user month-on-month growth.

QuantML (01/2021 - Present)

- **Summary**: QuantML is an aggregation of different machine learning algorithms for the analysis of the cryptocurrency market, risk management strategies, capital allocation in trades, and active portfolio management.
- **Technologies**: The repository is mainly written in Python and leverages libraries such as Quantopian Zipline and Pyfolio, pandas and scikit-learn. Visualization libraries such as seaborn, Plotly and matplotlib are also heavily used.
- **Statistics**: The repository contains advanced trading strategies that use techniques such as random forests and genetic algorithms which have yielded a 3% return over the benchmark (buying and holding BTC) while avoiding look-ahead bias.

CERTIFICATES

Google Data Analytics Professional Certificate (10/2021 - 01/2022)

The course provided by Google, teaches how to visualize and present data findings in dashboards, presentations and commonly used visualization platforms. It also teaches key analytical skills (data cleaning, analysis, & visualization) and tools (spreadsheets, SQL, R programming, Tableau)

Data Structures and Algorithms Specialization (09/2020 - 03/2021)

The rigorous specialization provided by Stanford University on Coursera is emphasizes the big picture and conceptual understanding over low-level implementation and mathematical details of algorithms. The key rationale for taking this course is to gain a deep understanding of different algorithms for efficient problem solving.