Adnan Quisar

Education

University of Sussex

Sep 2020 - May 2024

BSc Computer Science and Artificial Intelligence (Predicted First-Class Honours)

Brighton, United Kingdom

Bachelor's Thesis Inventory Forecasting in the Crude Oil Market with Machine Learning

Experience

University of Sussex

May 2023 - Sep 2023

Junior Research Associate

Brighton, UK

- Researched correlation between news reporting and market movement, utilising Garman-Klass volatility measurements and natural language processing (NLP) techniques to process the semantics of over 100,000 financial headlines.
- Developed an interactive neural network-driven map that models topic distributions and semantic relationships.
- Engineered a scalable and distributed NLP framework by integrating Langchain with a vector database to manage OpenAI-generated textual embeddings.
- Trained a Transformer-based multi-label classifier, using Bayesian Optimisation techniques to achieve 90% precision for market-relevant news tagging.

Thought Machine

Jul 2022 - Sep 2022

Software Engineer Intern (Payments)

Bloomsbury, UK

- Built a Go library to validate client-configured payment processes using graph theory, decreasing production support queries and saving an estimated £125,000 annually in operational costs.
- Authored a design document for an error dashboard, proactively collaborating with experts within the department to justify technical trade-offs between Elasticsearch and Prometheus with respect to the system requirements.
- Employed test-driven development (TDD) to write comprehensive unit and gRPC service acceptance tests using Go, Protocol Buffers and the Please build system.
- Created an observability dashboard with **Prometheus monitoring** and **Grafana** to gather insight and visualise the types of errors produced when creating payment flows, thereby reducing common validation errors by 40% through a product feedback loop that refined documentation to target common errors.

FinancialJuice

Jul 2020 - Dec 2021

Software Engineer

- Independently delivered a project that aggregates and evaluates financial articles with similar linguistic structure using machine learning and NLP techniques. Included creating a **novel Jaro-Winkler algorithm** for similarity measurement.
- Implemented a dynamic trending topics feature using advanced text analysis techniques. This was used internally by analysts and resulted in a 25% increase in daily headline output.
- Crafted dynamic web applications with jQuery and ASP.NET (C# & VB.NET), using Azure DevOps for version control.

Tradeviews

Dec 2018 - Aug 2020

Junior Software Engineer

Horley, UK

- Automated web data extraction and transformation using Python. Expanded data source diversity by 150% and facilitated efficient CSV, JSON and XSLX integration for clients.
- Generated & modified data sets via Microsoft Excel tools and VBA Code. Due to the new influx in informative cargo tradeflow data, we were able to secure 4 new major clients.

Projects

Trading Copier Bot | Read More | Python, SQL, Time Series, Asynchronous Programming, WebSockets

Dec 2022

• Algorithmic trading project that extracted market trading signals from messaging platforms using regex and converted them into actionable trades. The framework also facilitated backtesting and generated metric reports for signal providers.

Extracurricular

Teaching Assistant (2023) & Peer Assisted Learning Tutor (2022)

Sep 2022 - Present

HackSussex Society Vice President (2023) & Lead Web Developer (2021)

Sep 2021 - Mar 2024

ICHack 23 (Imperial College Hackathon) Runner Up

Feb 2023

Showcode Level-Up Society Hackathon Runner Up

Jul 2021

Skills

Languages: Python, Go, C++, C#, C, Java, VBA, VB.NET

Technologies: React, Node.js, Linux, AWS, jQuery, IATEX, Git, Pentaho, MySQL, Microsoft SQL Server, Bootstrap

Applications: Microsoft Excel, Notion, Atlassian, Jira, Netlify