

Jack Doherty

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EDUCATION

Loyola University Maryland

September 2020 – May 2024

Bachelor of Information Systems & Data Analytics

- Relevant Coursework: Applied Mathematics, Discrete Mathematics, Algorithms, Databases, Machine Learning, Artificial Intelligence, Statistics, Finance, Economics
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EXPERIENCE

Revature

March 2025 – Present

Software Engineer Intern

- Developing enterprise-level applications using Spring Framework, Hibernate, and RESTful APIs to build scalable, high-performance software solutions.
- Applying object-oriented programming, data structures, and algorithms to deliver robust Java-based projects with real-world impact.
- Collaborating in agile teams to design, develop, and test full-stack applications, integrating Java, SQL, HTML, CSS, and JavaScript for seamless functionality.

Sports Logic AI

June 2024 – February 2025

Founding Software Engineer & Data Analyst

- Developed and deployed a full-stack web application providing data-driven sports analytics and strategic tools, serving over 100 users with real-time insights.
- Implemented automated data processing pipelines with Node.js and Express.js, analyzing win probabilities by processing over 10,000 daily odds entries. Utilized efficient algorithms to deliver actionable insights via interactive React visualizations.
- Utilized MongoDB for scalable data storage and management. Enhanced application reliability by integrating CI/CD pipelines with GitHub Actions, ensuring seamless updates.

Boar's Head

June 2023 – August 2023

Business Analyst Intern

- Conducted data analysis on sales and inventory datasets using SQL and Python, identifying trends that informed strategic decisions and improved operational efficiency by 10%.
 - Collaborated with cross-functional teams to gather and document business requirements, streamlining communication between technical and business stakeholders for process optimization.
 - Developed dashboards with Tableau to visualize key performance indicators, enabling leadership to make data-driven decisions for supply chain improvements.
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PROJECTS

Liquidity Provision Protocol

- Developed a Solidity-based DepositController contract to handle stablecoin deposits, enabling seamless integration with Curve Finance liquidity pools for yield generation.
- Built and Deployed a staking dApp using OpenZeppelin, minting lpUSD tokens and enabling users to stake for wlpUSD, which accrues value from Curve Vault's appreciating pricePerShare
- Implemented Chainlink Data Feeds and Automation Workflows, enabling auto-compounding yield through keeper bots, optimizing returns with minimal user intervention.

PredictArb

- Developed an automated arbitrage trading system that identifies and analyzes price discrepancies between Polymarket and Kalshi prediction markets.
- Implemented real-time order book monitoring using WebSocket connections to track market movements across multiple platforms simultaneously.
- Created advanced price comparison algorithms that calculate profitable trading opportunities based on combined probability differentials.

Premier League Match Predictor

- Developed a machine learning model using Random Forest Classifier, achieving a win prediction accuracy of 62.5%, to forecast outcomes of English Premier League matches based on data.
- Engineered features by calculating rolling averages for key statistics like goals for and against, significantly enhancing the model's predictive power for match outcomes.
- Implemented data preprocessing techniques, including date conversion and categorical encoding, which improved model training efficiency and prediction accuracy by addressing inconsistencies.

LEADERSHIP

Captain, Loyola Club Basketball

September 2021 – May 2024

- Led a team of 20 student athletes, organizing weekly practice sessions and skill development programs, which led to three consecutive winning seasons.
- Organized monthly competitive basketball events against university clubs, raising over \$1,000 for charity through fundraising.

SKILLS

- **Programming Languages:** Python, JavaScript, TypeScript, Java, Go, Rust, C
- **Libraries/Frameworks:** Node, Next.js, React, Django, Spring Boot, Flask, Scikit-learn, NumPy, Pandas, Langchain, GraphQL
- **Tools:** Docker, Kubernetes, Elasticsearch, Git, Postman, CI/CD
- **Databases:** SQL, MongoDB, PostgreSQL, Redis, Cloud Databases