

# Jack Thomas Doherty

github.com/jtdoherty • jtdoherty1105@gmail.com • 516-492-8129 • in/-jackdoherty • jtdportfolio.vercel.app/

## EDUCATION

### Loyola University Maryland

Bachelor of Information Systems & Data Analytics

August 2020 - May 2024

Baltimore, MD

- Relevant Coursework: Data Structures, Algorithms, Database Systems, Data Science, Statistics, Computer Networks, Data Mining, Cyber Security

## EXPERIENCE

### Full Stack Software Engineer (Contractor)

May 2024 - Present

#### Redshirt Fantasy

Queens, NY

- Architected and developed a full-stack fantasy sports platform using React, Node.js, Express.js, and MySQL. Integrated real-time sports data via the SportaData.io API to deliver up-to-date information to users.
- Engineered a secure authentication system and a scalable database architecture to support complex operations like multi-player drafts, dynamic scoring, and automated player trading, enhancing user interaction and platform reliability.
- Led the development of a customizable league management system, featuring commissioner controls, automated draft scheduling, and configurable league parameters. Improved user engagement through an intuitive UI/UX design that simplified league management.

### Business Analyst Intern

June 2023 - August 2023

#### Boar's Head Provisions

Queens, NY

- Developed Python scripts to extract and process over 100 data codes from a data lake, creating an efficient pipeline for data analysis and workflow optimization, which significantly enhanced decision-making processes.
- Created a custom Python pipeline on Azure for document automation, converting PDF and Word documents to Markdown, slashing wiki creation time by 95% and streamlining content management.
- Analyzed business trends using SQL and Excel, providing actionable insights that guided strategic decisions. Centralized the codebase for over 10 partners on Azure, enhancing collaboration and operational efficiency.
- Designed and implemented a custom repository for cloud transition using Azure, which improved code accessibility for all employees, resulting in a time saving of over 50 hours weekly for the company.

## PROJECTS

### SportsLogicZone

React | Express | MongoDB

- 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.

### ChessMaster

Angular | Spring Boot | PostgreSQL

- Developed a chess game application with multiplayer and AI modes using Angular for the frontend, Java with Spring Boot for the backend, and PostgreSQL for managing user accounts.
- Integrated the Stockfish API to leverage one of the strongest chess engines, enabling the application to provide competitive AI opponents with varying difficulty.
- Implemented core chess logic including piece movements, check, checkmate, stalemate detection, and special moves like castling, en passant, and pawn promotion, all utilizing an object-oriented approach with abstract and specific piece classes.

### Premier League Match Predictor

Pandas | NumPy | Scikit-Learn

- 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 historical 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 data inconsistencies.

## INVOLVEMENT

### Captain | Loyola Club Basketball

September 2022 - 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 successful fundraising initiatives.

## SKILLS

**Languages:** JavaScript, Python, TypeScript, Java, C/C++, SQL, HTML, CSS

**Developer Tools:** Git, GitHub, AWS, Docker, Kubernetes, PostgreSQL, MongoDB, Azure, CI/CD, Postman, Selenium, Figma, Vercel, Supabase, Prisma

**Libraries/Frameworks:** React, Next.js, Node.js, Express.js, Spring Boot, Angular, Flask, Django, Tailwind CSS