Joshua Masters

in/joshua-i-masters mastersj5.github.io

SUMMARY

Enthusiastic Computer Science graduate with hands-on experience in full-stack development and machine learning. Currently applying skills in freelance web design projects, eager to tackle challenging software development problems in a dynamic and collaborative environment.

EDUCATION

University of Dayton — Dayton, OH
Bachelor of Science | GPA: **3.57** / 4.0 — Aug. 2020 - May 2024

- Concentration: Artificial Intelligence/Data Science

SKILLS

Programming Languages: Java | Python | C# | JavaScript | C++ | SQL

Web Development: HTML/CSS | React.js | Express.js | Socket.IO | Node.js | MongoDB | Docker | Heroku | Figma | Spring

Software Project Management: Agile | Scrum | Jira | Git | GitHub | Sprint Planning

Core Knowledge Areas: Web Design | Data Structures/Algorithms | Machine Learning | Data Science | AI/LLMs | APIs | Microservices

EXPERIENCE

Ohio Department of Transportation — Columbus, OH
College Intern — July 2023 - Aug. 2024

- Provided technical support, resolving over 200 user inquiries for the Civil Rights & Labor Construction Contracting System.
- Improved data accessibility by leveraging SQL Server Management Studio for efficient querying and data extraction.
- Enhanced system documentation, ensuring accuracy and clarity for users, contributing to a smoother user experience.
- Proposed and initiated a research project to automate Payment Affidavit processing, aiming to increase efficiency and reduce manual effort.

Kenston Technology Department — Bainbridge, OH
Student Technology Summer Intern — May 2016 - Aug. 2020

- Delivered efficient on-site technical support, resolving an average of 15 hardware/software issues per week to minimize disruptions.
- Implemented and maintained an inventory management system for tracking technology assets, resulting in a 20% reduction in equipment loss.
- Led a team of 5 student technicians, fostering collaboration and ensuring timely issue resolution.

PROJECTS

Financial Exchange Application — Dr. Nicholas Stiffler (Capstone 2)
Jan. 2024 - Apr. 2024

Collaboratively developed an event-driven, microservice-based financial exchange application to ensure reliable client transactions and support market open/close cycles.

- Built a dynamic frontend using React and a robust backend with Spring Boot.
- Leveraged Kafka for high-throughput data streaming and MongoDB for efficient, scalable storage.
- Utilized Docker containerization for streamlined deployment and management.
- Fostered collaboration and continuous improvement through Agile practices (weekly Scrum meetings, bi-weekly sub-team syncs, and Sprint Retros).

Messenger Web Application — Dr. Nicholas Stiffler (Capstone 1)
Sept. 2023 - Dec. 2023

Designed and developed a real-time messenger application for seamless communication.

- Built a scalable messaging backend capable of handling instantaneous communication using Node.js, Express, and Socket.IO.
- Utilized MongoDB for efficient data storage and deployed the application on Heroku.
- Conducted thorough testing to ensure immediate message delivery and a smooth user experience.
- Employed Agile/Scrum methodologies, Git for version control, and Jira for project management to facilitate effective collaboration.

Detecting Fake News with ML — Dr. Bayley King (Data Science)
Jan. 2023 - May 2023

Developed a machine learning model to accurately classify fake news articles.

- Built and trained a TensorFlow neural network, achieving 70% accuracy in identifying fake news.
- Preprocessed and analyzed a Kaggle dataset using NLP techniques (tokenization, lemmatization, stop word removal).
- Evaluated model performance using key metrics and a confusion matrix to identify areas for improvement.
- Utilized data visualization to gain insights into data distribution, informing feature engineering and model interpretation.