

David Olaniyan

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SKILLS

Programming Languages: Python, JavaScript (ES6+), TypeScript, C#, Java, HTML/CSS

Web Development: React, Vue.js, Quasar, Node.js, Express.js

Cloud & DevOps: AWS, GCP, Kubernetes, Docker, GitHub Actions

WORK EXPERIENCE

Synamedia

London, ON

Software Engineer Intern

May 2022 - August 2023

- + Accelerated software release cycles by 30% through the automation of GitHub Action workflows, eliminating 70% of manual processes.
- + Engineered scalable RESTful APIs for the Gravity project, facilitating seamless data exchange between services and boosting system scalability
- + Enhanced the company's web presence by implementing a mobile-first approach, leading to a 5% increase in user satisfaction scores and higher engagement metrics.
- + Optimized quality assurance workflows by integrating custom ESLint rules and GitHub Actions, reducing code review times and ensuring adherence to coding standards across teams.
- + Strengthened disaster recovery capabilities by designing and deploying a robust backup and restore solution using AWS S3, cutting downtime during system failures.
- + Improved bug identification and resolution efficiency by 15% through enhanced user interaction tracking on the company's webpage, enabling the QA team to respond faster
- + Enhanced user experience and site analytics by integrating advanced tracking mechanisms, enabling data-driven improvements to interface design.

PROJECTS

Connect 4 Multiplayer Game - [Website](#) [GitHub](#)

- + Engineered a full-featured Connect 4 game using React and Socket.IO, supporting online multiplayer, local multiplayer, and dynamic AI opponents.
- + Developed an "Impossible" AI using the Minimax algorithm with alpha-beta pruning, enabling optimal move prediction and increasing replayability.
- + Integrated real-time socket communication to sync game state between clients, including rematch requests, move broadcasting, countdown timers, and player disconnection handling.
- + Built a responsive game UI with visual effects like animated win detection, confetti celebrations, and tooltips for enhanced user experience.
- + Added support for sound effects, player name resolution (handling name collisions), and dynamic rematch flows depending on game mode (AI, Local, Online).
- + Designed a modular and extensible architecture to allow future features such as persistent win/loss tracking via local storage
- + Handled real-world multiplayer edge cases, including duplicate player names, mid-game disconnections, invalid game codes, and premature exits, ensuring a resilient and polished player experience.

Realtime Chat Application - [Website](#)

- + Developed a robust real-time messaging platform using Socket.io, enabling seamless communication across dynamically created chat rooms for over 100 concurrent users without latency.
- + Architected a user-centric front-end with React, improving user satisfaction through a highly responsive and intuitive interface.
- + Deployed the application on Heroku with optimized environment configurations, ensuring 99.9% uptime and rapid scaling during high-demand periods.

Traffic Intersection Analysis - [GitHub](#)

- + Engineered a scalable traffic management system that integrates real-time traffic data streams using a modular and event-driven architecture.
- + Built a heat map generation pipeline leveraging YOLO-based image recognition and Python analytics (Pandas, NumPy) to identify congestion patterns and optimize traffic flow.
- + Designed and prototyped a streaming-capable architecture to support live traffic monitoring and automated data ingestion from future real-time sources such as IoT sensors, city traffic cameras, and API feeds.
- + Developed high-performance data pipelines to process traffic analytics, enabling batch and near-real-time insights for city planners.
- + Simulated large-scale traffic conditions to test system accuracy, refining machine learning models for scalability and fault tolerance in dynamic environments.

EDUCATION

University of Western Ontario

London, ON

BE - Software Engineering with co-op 2024