

Krystian Rusin

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Education

Ontario Tech University

BACHELOR OF ENGINEERING IN SOFTWARE ENGINEERING AND MANAGEMENT

Oshawa, Ontario

Sept 2018 – June 2023

Skills

Languages: Python, Java, C#, SQL, HTML, CSS, JavaScript, TypeScript

Frameworks: React, Express, TailwindCSS, Flask, Django

Technologies: Git, Linux, MongoDB, Firebase, PostgreSQL, AWS, Jira, Confluence, Docker, Power BI

Work Experience

Healthy Gamer

SOFTWARE DEVELOPER

Remote, Contract

May 2024 – Present

- Responsible for the ongoing development and administration of a Discord bot serving 23,000+ users, built on TypeScript, NodeJS and PostgreSQL with Prisma to streamline data management.
- Collaborated with stakeholders to clarify requirements and ensure timely delivery of high-quality software solutions.
- Optimized application startup time, resulting in a 35% faster boot time and significantly reducing database connection overload failures.
- Optimized login and sign-up processes for a web application built with TypeScript, NodeJS, and PostgreSQL by integrating Google OAuth, improving user authentication speed and security.
- Refactored and optimized REST API endpoints, resulting in faster server response times and improved application performance.

ObjectNova Inc

FULL STACK ENGINEER

Remote, Contract

November 2023 – June 2024

- Adapted quickly to changing priorities and deadlines at a startup, leveraging Jira and Confluence to streamline project management and documentation.
- Spearheaded the redesign of the company's landing page, building a robust full-stack webpage using ReactJS, NodeJS, and Express, resulting in a 20% increase in organic traffic.
- Followed agile methodologies to lead the development of a new web application, leveraging ReactJS and ExpressJS to create a user-friendly and efficient platform for managing client data and transactions.
- Developed ETL pipeline to automate data extraction from an API, data transformation, and loading processes using Python and PostgreSQL.

Projects

Reinforcement Learning Agent for "Slay the Spire"

Python, PyTorch, Power BI,

PostgreSQL

- Developed a reinforcement learning model using Maskable Proximal Policy Optimization (PPO) to play the game "Slay the Spire", utilizing custom environments and observation spaces to handle complex, multi-dimensional game states.
- Designed a custom rollout buffer to efficiently manage experience replay and implemented Generalized Advantage Estimation (GAE), enhancing model performance and training stability.
- Implemented a dynamic reward system and an invalid action mask to improve the agent's strategic decision-making, resulting in faster convergence and improved gameplay performance.
- Developed a PostgreSQL-based database to track game statistics, agent decisions, and performance metrics for optimizing the reinforcement learning model.

<https://github.com/KrystianRusin/Slay-The-Spire-RL>

Instagram Recreation

React, Express, MongoDB, Firebase

- Utilized ReactJS to build a responsive and faithful replica of the Instagram user interface.
- Engineered a RESTful API with ExpressJS for handling core functionalities such as user authentication, post creation, and data retrieval.
- Leveraged MongoDB for database management and Firebase for real-time data updates, ensuring fast and reliable performance.
- Implemented a real-time messaging system using Firestore for instant communication between users.

<https://github.com/KrystianRusin/instagram-clone>