

# Jacob Roe

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## Education

### **Bachelor of Computing (Honours) - Software Design, Queen's University** September 2022 - Present

- Relevant Courses: Computer Networks, Data Structures, Algorithms, Software Quality Assurance, Database Management Systems, Software Architecture

## Independent Projects

### **Artist Portfolio web app**

February 2025 - Present

Personal Project / Freelance Work

- Developing a responsive Next.js website for an artist's portfolio, showcasing their work dynamically.
- Integrating AWS S3 for secure artwork storage and optimized image loading for performance.
- Designing an intuitive UI/UX in Figma to ensure a seamless browsing experience.
- Using a PostgreSQL-backed database to store artwork metadata, improving data retrieval efficiency.
- Testing and refining RESTful API routes using Postman for smooth backend interactions.

### **Discord Bot Development**

December 2024

Personal Project

- Developed a Discord bot using Go, leveraging AniList's public GraphQL API for seamless integration.
- Utilized an SQLite database to cache common user data, minimizing redundant queries to AniList's GraphQL API and improving bot performance.
- Optimized API queries and data handling to ensure efficient performance and reliability.

## Technical Experience

### **Group Project: Ticket Booking Service web app**

September - December 2024

CISC 327: Software Quality Assurance, Queen's University

- Leading a team of 3 to design, plan, and prototype a ticket booking service.
- Using HTML, CSS and JavaScript on the front end with SQLite for data storage all on a Flask back end.
- Prototyping UI using Figma, facilitating iterative design and feedback sessions with peers.
- Conducting requirements analysis and developed use cases to guide the design process.
- Creating test plans and test cases to evaluate system functionality, performance, and usability.

### **Group Project: Game Development**

Jan - April 2024

CISC 226: Game Design, Queen's University

- Collaborated with a team of 5 to design and develop a game from scratch using Unity.
- Contributed to programming and game design, implementing features and functionality using C# and object-oriented programming practices within Unity's development environment.
- Utilized Git for version control, resulting in efficient management of code changes across the team
- Facilitated playtesting sessions, using player feedback to enhance and polish the final product.

## Additional Work Experience

### **Grocery Clerk**

2019-2023

Zehrs - Owen Sound, ON

- Worked with team members to optimize operations, showcasing adaptability and attention to detail.
- Provided exceptional customer service, enhancing communication and problem-solving skills.

### **Teaching Assistant**

July-August 2018 & 2019

Muskoka Language International - Owen Sound, ON

- Cultivated strong communication and leadership skills by interacting with students, teachers, and parents to support educational goals.