

# DIREN D BHARWANI

Software Engineer

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## Education

DigiPen Institute of Technology, Singapore

Bachelor in Computer Science in Real-Time Interactive Simulation | GPA: **4.43** / 5.0

- Excelled in coursework covering Software Engineering Projects, Advanced Computer Graphics, Data Structures & Algorithms, Design Patterns, Computer Networking, Operating Systems, Calculus & Motion Dynamics, Spatial Data Structures & Artificial Intelligence for Games.
- Actively contributed as Secretary & Treasurer for SIT Soul Extreme (Dance Club), showcasing leadership and organizational skills outside of academics

## Skills

**Programming Languages:** C, C++, JavaScript/TypeScript, Go, HTML, CSS

**Frameworks:** Node.js, Svelte, Hyperledger Fabric

**Technologies:** Linux, AWS, NoSQL, Android

**Developer Tools:** Git, Jira, Terraform, GitHub, GitLab, CMake

**Development Practices:** Agile, Test-Driven Development, Continuous Integration/Continuous Deployment (CI/CD), DevOps

**Soft Skills:** Leadership, Problem-Solving, Interpersonal Skills, Time Management, Public Speaking, Research, Attention to Detail, Communication

## Experience

Government Technology Agency (GovTech)

Singapore

Software Engineer Intern

08/2023 – 04/2024

- Implemented FIDO passkey to enhance security and mitigate phishing attacks, integrated it into a Multi-Factor Authentication system for Singpass.
- Enhanced CI/CD pipeline efficiency, resulting in a 15% increase in deployment speed.
- Reduced technical debt by streamlining and restructuring the codebase, ensuring code reusability and maintainability.

AIA

Singapore

Customer Insights Analyst

11/2019 – 07/2020

- Designed and implemented scalable data solutions, leading to increased team efficiency and productivity.
- Led the migration of SQL scripts and resolved data validation discrepancies between new and old data warehouses, resulting in an 80% reduction in data errors.

## Projects

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### Blockchain-based e-Voting System

Lead Developer

01/2024 – 04/2024

- Designed and deployed a secure and transparent e-Voting system using Hyperledger Fabric, enhancing electoral processes' integrity.
- Achieved a 640% increase in vote counting speed and potential cost reduction by 52.7% through innovative design and implementation.
- Demonstrated strong self-management and problem-solving skills by leading the entire project from conceptualization to execution.

### Ransackin' Raccoon

Game Engine Developer

09/2022 – 04/2023

- Spearheaded the development of core components including a 3D Physics Engine, Scene Graph, Math Library, and Engine Utilities.
- Enhanced performance by seamlessly integrating advanced technical features into a custom 3D game engine.

### Fides

Technical Lead

09/2021 – 04/2022

- Led a team in research, planning, testing, and integration of technical features with a custom 2D game engine.
- Engineered a robust 2D physics engine, particle system, UI system, and cutting-edge 2D lighting system with shadows, enhancing the game's immersive experience.
- Drafted a comprehensive technical design document to document the architecture and best practices for developing the engine.

## Languages

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English (Fluent, Written & Spoken)    Mandarin (Basic, Spoken)