

# DIREN D BHARWANI

Software Engineer

+65 92222623 ▪ [diren.bharwani@gmail.com](mailto:diren.bharwani@gmail.com) ▪ [linkedin.com/in/diren-bharwani](https://www.linkedin.com/in/diren-bharwani) ▪ [direnbharwani.github.io](https://direnbharwani.github.io)

## Education

DigiPen Institute of Technology, Singapore

Bachelor in Computer Science in Real-Time Interactive Simulation | GPA: **4.32** / 5.0

- Excelled in 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.
- Secretary & Treasurer for SIT Hip Hop Dance Club (2023)

## Skills

C++, JavaScript/TypeScript, Node.js, Go, Python, Git, Jira, Linux Development, AWS, Terraform, DevOps, GitHub, GitLab, Agile, OpenGL, DirectX 11, Vulkan, Test Driven Development, Hyperledger Fabric, CI/CD

Leadership, Problem-Solving, Active Listening, Interpersonal Skills, Time Management, Detail-Oriented, Public Speaking, Research, Goal Setting

## Experience

Government Technology Agency (GovTech)

Singapore

Software Engineer Intern

08/2023 - Present

- Implemented FIDO passkey to reduce chances of phishing attacks and integrated into a Multi-Factor Authentication system for Singpass.
- Improved CI/CD pipeline speed by 15%.
- Reduced technical debt of the project by decluttering and restructuring the codebase to keep code reusable.
- Created a proof-of-concept blockchain based electronic voting system for use during elections to improve security and speed by 2,366%.

AIA

Singapore

Customer Insights Analyst

11/2019 – 07/2020

- Improved efficiency within team by designing & building scalable data solutions.
- Oversaw the conversion of SQL scripts and resolved data validation discrepancies between new & old data warehouses, reducing data errors by 80%.

## Projects

---

### Ransackin' Raccoon

Programmer

09/2022 – 04/2023

- Spearheaded development of a 3D Physics Engine, Scene Graph, Math Library & Engine Utilities.
- Seamlessly integrated advanced technical features into a custom 3D game engine resulting in enhanced performance.

### Fides

Technical Lead

09/2021 – 04/2022

- Led team in conducting 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

---

English (Native)

Mandarin (Basic, Spoken)