

## RECENT EXPERIENCES

### Senior Backend Engineer

### Ascenda Loyalty Pte Ltd

03/2023 - Now

- Developed and implemented a scalable data archival system using table partitioning, replication workflows, and S3 exports, mitigating database performance issues and aligning solutions with cross-team business needs.
- Successfully led the Ruby 3 Upgrade Initiative, completing a challenging year-long migration of two applications from an old cornerstone library by designing a gradual migration path and tailoring a discovery-to-build workflow, ensuring stability and productivity.
- Accelerated the above with innovative automation tools, including code generators and linting tools, achieving a seamless rollout in Q4 2023 with zero production alerts or disruptions.
- Accepted ownership of the PCI Proxy repository, facilitating knowledge transfer, onboarding the team, addressing technical debt, and progressing toward becoming a subject matter expert.
- Enhanced operational reliability during the holiday seasons by optimizing application performance, preventing SLA breaches, and establishing a cross-team on-call directory.
- Mentored an intern into a full-time junior engineer and conducted 5-6 weekly intern interviews, recommending candidates for engineering manager selection.

### Backend Engineer

### Ascenda Loyalty Pte Ltd

04/2021 - 03/2023

- Designed and built the initial Ops Panel, enabling self-service software operations for the TechOps team and integrating in-house identity, roles, and access provider for seamless single sign-on experience (SSO) and simplified access management.
- Designed and implemented the Star Alliance Membership ID generation and allocation system, ensuring unique ID creation up to 10 million and idempotent allocation in high-concurrency scenarios.
- Accelerated the Loyalty Engine test suite by 50% through analysis and removal of an inefficient development package.
- Maintained and enhanced a shared ruby library with a monorepo initiative, packaging 9 modules individually to reduce app dependency size and improving contributor's developer experience from setup to release.
- Designed, developed, and upgraded user-data onboarding workflows for Loyalty Engine, supporting multiple financial institutions.

## SKILLS

Backend	Rails, Hanami, ROM, Ruby, RSpec, Slimlang, Sidekiq, Webpacker. Postgresql, Table Partitioning, Data Archival.
People	Software Project Leadership, Management and Maintenance.. Process Discovery, Design and Optimization. Code Reviews, Problem Solvings, Collaborations and Simple Communication.
Frontend	TypeScript, React Native, Redux, JavaScript.
Others	AWS, Terraform, Unity, Godot Engine, Cocos 2D-x, Golang, C#.
Speaks	English, Chinese, Bahasa Melayu and basic Korean.

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**PROJECTS****Ruby 3 Upgrade Initiative - Dev Lead***In association with Ascenda Loyalty Pte. Ltd.*

A year-long Ruby 3 Upgrade Initiative of two applications from an outdated library, Hanami Model to Ruby Object Mapper, featuring depth into various libraries' code, designs of replacements, invention of a discovery-to-build workflow and introduction of code generators and linter to accelerate the transition.

The migration was completed smoothly with thorough testing, and the final rollout went unnoticed in production, with no incidents or alerts.

**Data Archival - Dev Lead***In association with Ascenda Loyalty Pte. Ltd.*

A data archival framework integrating table partitioning, automated replication, and S3 exports to reduce database strain and prevent SLA breaches. Delivered reusable templates, rollout plans, and documentation to streamline adoption across stakeholders and clients.

**React Simple Image Carousel**Github link : <https://bit.ly/30Hqmpn>

A React simple to use and customizable image carousel for the web.

**Heart Rate Horror VR Game (FYP)**Youtube link: <https://bit.ly/2UGy33P>

A 3D VR horror mobile game, uses a custom designed game console to provide heart rate to the game via Bluetooth as as input.

**Recall**Download link: <https://bit.ly/3DaOCNS>

A simple memory game that runs on Android OS.

**Vzoid***In association with Brandsight Sdn. Bhd.*

A beauty e-commerce React Native app completed with shopping cart, catalogue, categories, authentications, and payments, for deployment in two months time.

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**EDUCATION****CGPA: 3.79 / 4.00****Multimedia University, Cyberjaya**

03/2014 - 02/2018 Bachelors. (Hons) Computer Science, majored in Game Development

**Awards**

Best Poster Award (Application-Based) @ FYP Poster Day

2018

[Cert](#)

First Runner Up @ SEA Game Jam

2017

[Link](#)

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**EARLIER EXPERIENCES****Fullstack Engineer****Prime Technologies Pte Ltd**

05/2019 - 04/2021

- Enhanced and refactored an energy retailer Rails app for billing, and client management using TDD with Ruby on Rails, Sidekiq, PostgreSQL, and AWS.
- Architected a loyalty platform and launched an API service on AWS with a React Native app, delivering scalable solutions.

05/2018 - 11/2018

**Software Engineer****Snappymob Sdn Bhd**

- Built a messaging app with WebSocket, modularized UI for faster sprints, and refactored shared code into a reusable core library.

03/2018 - 04/2018

**Freelance React Native Engineer****Brandsight Sdn. Bhd.**

03/2017 - 06/2017

**Frontend Intern****Binary.com**