

# Shenyi Zhang

Associate Software Engineer with one year of working experience in Java backend development, automation, and infrastructure as code. A problem solver who is familiar with distributed systems, data structures, and algorithms.

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## EDUCATION

**MIT, Master of Information Technology, Monash University** **Mar 2020 - Dec 2021**

- GPA 3.625/4.0

**BE, Bachelor of Mechatronic Engineering, Southwest Petroleum University** **Sep 2014 - Jul 2018**

- National Endeavor Scholarship

## WORK EXPERIENCE

**Associate Software Engineer, Coles Group** **May 2022 - Present**

- Building a new product information microservice used by Coles mobile apps and websites to **handle millions of requests daily**, and successfully drove the establishment of infrastructure.
- Developed a reactive gift card sales transaction support system using Spring Webflux, enabling other teams to track the gift card sales data and history from a third-party vendor.
- Standardized code quality for the team by integrating Jacoco and Checkstyle maven plugins into parent pom, increasing test coverage to **80%** and facilitating adoption in **40+** projects.
- Improved code stability and performance by identifying and resolving a thread safety issue in the JWT acquisition process, facilitating adoption in **40+** projects.
- Skill Set: Java, Terraform, Spring Boot, Azure, Azure Pipelines, Kubernetes, Docker, Argo CD.

## SKILLS

**Programming Languages:** Java (Proficient), Python (Familiar), Terraform (Familiar), SQL (Familiar)

**Frameworks:** Spring Boot, Spring Webflux

**Database:** MySQL, Redis, MongoDB, Azure Cosmos DB

**DevOps:** Kubernetes, Docker, Azure Pipeline, Argo CD

**Cloud Provider:** Microsoft Azure

**Others:** Maven, JVM, RabbitMQ, Azure Service Bus, Git

## PROJECTS

**[Eco-friendly Routing Algorithm \(doi.org/10.1007/978-3-031-15512-3\\_10\)](https://doi.org/10.1007/978-3-031-15512-3_10)** **Mar 2021 - Dec 2021**

- Designed and developed an Eco-friendly routing algorithm to find the route consuming the least fuel consumption, the academic paper is published at [Australasian Database Conference 2022](https://www.austlii.edu.au/au/other/dfat/publications/australasian_database_conference_2022/).
- Reduced the average fuel consumption by up to **35%** by considering mobility profiles, driving behavior, and vehicle type.

**[Crazy Sale Online Shopping System \(github.com/Shain001/flashsale\)](https://github.com/Shain001/flashsale)** **Dec 202 - Jan 2022**

- Architected and developed a demo shopping system allowing customers to purchase products with limited-time promotions.
- Enhanced concurrency capacity to **5000 TPS** by using Redis Sentinel, Sharding JDBC, Redisson distributed lock, and RabbitMQ for database optimization, thread safety, and high availability.

## Certificates

- AZ-104: Azure Administrator Associate