SARUN TAPEE

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GOLANG DEVELOPER

Skilled Full Stack Developer with over 2 years of hands-on expertise in developing and optimizing e-commerce platforms in Agile environments. Proficient in a diverse technology stack, including Golang, TypeScript, gRPC, GraphQL, and React, with strong capabilities in MongoDB for data/database management. Skilled in microservices architecture and Docker, ensuring scalable, resilient applications that support seamless user interactions and efficient workflows. Dedicated to writing clean, maintainable code and collaborating effectively across teams to meet project goals.

• Problem Solving • Data Structure and Algorithms • Object Oriented Programming (OOP)
• Design Pattern • Microservice • Cloud Computing • Version Control • API Design

Languages: Golang, TypeScript, JavaScript
Web: HTML, CSS, JSON, React, MaterialUI, ElasticUI, TailwindCSS, Emotion
Web Services: gRPC, GraphQL
Frameworks: Express, NodeJS, NextJS
Databases: MongoDB, PostgreSQL, Elasticsearch
SDLC: Agile
Tools: GitHub, GitLab, Jira, Discord, VSCode, IntelliJ IDEA, VIM, Mocha, Chai, PactumJS, Postman, Swagger
Platforms: Windows, Linux, MacOS

PROFESSIONAL EXPERIENCE

CAREER NOTE: *Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).*

DIGITHUN WORLDWIDE, Bangkok, Thailand • 10/2021 – 12/2023
Provide platform for e-commerce. Mainly focus on book product e.g. Physical book, E-book, Audio book, and Novels.

Full Stack Web Developer
Developing front-end and back-end of web application

- Developed a command-line tool in Golang for efficient data migration from the Reeeed project, automating complex data transfer processes and enhancing developer experience with intuitive command options, resulting in a smoother and more reliable data migration.
- Implemented an authentication service using Golang with Basic Auth and OAuth, enabling secure content management access, reducing unauthorized access attempts significantly and improving user management processes by 90%.
- Architected a payment service using the strategy design pattern in Golang, enabling seamless swapping of payment gateways without requiring changes to the underlying business logic layer, liberating the company from reliance on a single monopolistic payment provider, offering greater flexibility and the ability to integrate multiple payment solutions.
- Built a flexible promotion service to support dynamic marketing campaigns, including features for discounting product prices and providing users with free daily coupons, leading to a 30% increase in website traffic and a 20% boost in conversion rates, significantly driving user engagement and sales growth.
- Redesigned and optimized the product search API to improve match relevance by leveraging Elasticsearch, resulting in a 90% increase in accuracy and significantly enhancing the user experience by delivering more relevant product recommendations and search results.
- Optimized database queries to resolve the N + 1 query problem by implementing a proxy layer for the repository, which cached and batched many-to-one associations before delegating to the repository layer, reducing database query round trips by 30%, significantly improving application performance and resource efficiency.
- Designed and implemented an idempotent payment service API to ensure reliable and consistent transaction processing, preventing duplicate charges and enhancing transaction reliability, even in the event of network failures or retries.

- Performed integration testing on APIs by scripting with PactumJS, enabling the detection of errors when API interfaces or behaviors changed, allowing the frontend team to quickly adapt to updates, ensuring seamless integration and minimizing potential issues caused by backend modifications.

Technologies Used: *Golang, TypeScript, React, gRPC, GraphQL, Microservice, Kafka, MongoDB, Prisma, Elasticsearch, OAuth, Basic Auth, Docker.*

ACADEMIC PROJECTS

Maharishi International University (2024)

- **Library System:** The desktop library management application with Object-Oriented Programming (OOP) principles, is designed to handle user roles such as Librarian and Administrator. The application allows Librarians to log in, manage book checkouts, search for members, view checkout history, and display available book copies. Administrators can log in to add new members, books, and book copies to the system. Implemented the checkout functionality and other key features using Java, while designing a simple, intuitive user interface with Java Swing. Utilized Java, Swing.

- **Bank system:** The desktop application with functionality for both Saving Accounts and Credit Card Accounts, applying design patterns to enhance system flexibility and maintainability. implementing an alert system that notifies account owners via email when an account is overdrawn, or a transaction exceeds a predefined threshold. The Observer pattern was used to trigger alerts, while the Strategy pattern was applied to enable flexible switching between logging alerts to the console or integrating with a real email service, ensuring scalability and easy future enhancements. The application is implemented by using Java and Java Swing. Utilized Java, Swing.

PERSONAL PROJECTS

Video on demand website (2023): A Video-on-Demand platform for selling online courses, with a streamlined process for both administrators and users. Admins can create and manage courses, while video content is securely encrypted and processed into multiple resolutions to optimize streaming based on the user’s screen size and internet speed, which is storage on Google Cloud. Users can easily register via Google or LINE accounts and purchase courses with automated access granted upon successful payment, eliminating the need for manual processing. The frontend was built as a single-page application using Next.js, with data transfer handled via GraphQL. The backend, developed in Golang, supports the application logic and stores data in MongoDB. Utilized Golang, TypeScript, React, GraphQL, MongoDB.

EDUCATION

Master of Science in Computer Science
(In progress via distance education; expected completion 12/2026)
Maharishi International University, Fairfield, Iowa

Key Courses: Machine Learning, Advanced Software Development, Algorithms, Web Application Architecture

Bachelor's in Mechanical Engineering in Naval Architecture and Marine Engineering
Chulalongkorn University, Bangkok, Thailand (07/2018)