WATCHARAPOL PHONGWILAI

Software Engineer

📞 099-185-7733

✉️ ph.watcharapol@gmail.com

📍 Bangkok/Thailand

https://github.com/rushmi0

EXPERIENCE

Equipment Management

📅 Jan. 2025 - Mar. 2025

📍 **Castrico Co., ltd.**   Tokyo, Japan

Backend Developer Cooperative Internship

- Designed and implemented core system components, including the Use Case Diagram and Class Diagram, to ensure a clear system workflow and structure.
- Built a Log System to track user activities for auditing and debugging purposes.
- Implemented User Authentication System, enabling secure login and access control.
- Implemented a User Account Management System, allowing administrators to create, modify, delete accounts, and enforce role-based access control.

Nostr Relay

📅 Jun. 2024 - Now 2025

📍 **Personal Projects**   Bangkok, Thailand

🔗 https://github.com/rushmi0/Fenrir-s

- Implemented the Nostr Relay to create a censorship-resistant global social network, this software follows the Nostr protocol specifications.
- Designed a flexible architecture using scalable design patterns to support future NIP implementations and feature expansions.
- Developed a high-performance Nostr Relay capable of handling large volumes of data and concurrent connections efficiently.
- Optimized for JVM 21 and GraalVM, ensuring maximum performance and compatibility.
- Implemented Docker-based deployment, simplifying installation and configuration.
- Enabled customizable policies through .env configuration, allowing relay operators to tailor the system to their needs.

RESTful API CRUD

📅 Jan. 2024 - Jul. 2024

📍 **University Projects**   Bangkok, Thailand

🔗 https://github.com/rushmi0/Jungmha

Backend Developer

- Designed and implemented the database and core system, enabling seamless interactions between service providers and customers.
- Developed a secure RESTful API, integrating Cybersecurity and Cryptography best practices.
- Implemented user authentication and authorization for secure access control.
- Built a scheduling and booking system, allowing customers to book services based on provider availability while enabling providers to accept or decline requests in real time.
- Designed API Documentation (Swagger UI), Sequence Diagrams, and API usage examples for front-end integration.
- Provided utility scripts (JavaScript) to streamline API interactions.

TECHNICAL SKILLS

Coding Skills

- Kotlin
- Rust
- Python
- JavaScript
- Java
- C#
- C
- Dart
- HTML, CSS
- SQL, NoSQL

Backend Framework

- Micronaut
- Quarkus
- Spring boot
- Ktor
- Actix

Development Tools

- Git, GitHub
- GitHub Actions
- Linux
- Docker
- Qodana, Sonarqube
- JetBrains IDE

Networking & Security

- Cloudflare Tunnel
- Cryptography
- Cybersecurity Fundamentals

SOFT SKILLS

- Self Motivation
- Problem Solving
- Open Mindedness to feedback
- Team Communication
- Fast learner

EDUCATION

Information Technology (IT)

Thai-Nichi Institute of Technology

📅 2020 - 2024

📍 1771/1 Phatthanakan Bangkok 10250

HOBBIES

Development free and open source software

Mobile app (Android Native)

📅 Feb. 2024 - Mar. 2024

📍 **Personal Projects**   Bangkok, Thailand

🔗 https://github.com/rushmi0/genesec

- Developed a mobile application using MVVM and Single Activity Architecture.
- Developed an application for generating Bitcoin WIF keys and Nostr key pairs securely.
- Implemented mnemonic (BIP39) generation, allowing users to choose between 12, 15, 18, or 24 words.
- Built a time-lock smart contract for Bitcoin, enabling funds to be unlocked only after a specified block time.

TRAINING AND WORKSHOPS

Road To Cybersecurity 4
SOSECURE Co., Ltd.

📅 2023

- Learn the basics of Network Security and Application Security.
- Development of secure applications with a focus on best coding practices to mitigate vulnerabilities.
- Learn to configure, manage, and secure Linux-based systems.

Bitcoin Development Kit Taproot Workshop
Bitcoin Dev Kit Foundation

📅 2022

- Learned Taproot-based multisig transaction workflows using the Bitcoin Development Kit (BDK).
- Generated private keys and shared public keys among participants.
- Created smart contracts with custom conditions, utilizing multisig and descriptor-based transactions.
- Signed and coordinated PSBT (Partially Signed Bitcoin Transactions) for broadcast to the Bitcoin testnet.