Thai Pham (Preston)

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Profile

Designed and built real large-scale Backend & Data systems.

Proven track record of leadership and delivery of high-impact changes that significantly improved system quarantees, conversion rates, and revenue.

Experience

SENIOR ENGINEER, SHOPEE – 2021-PRESENT

System designer and developer in Fulfillment Team. Handling warehouse and logistics calculations of orders from all buyers and sellers.

Processed **20 millions** orders per month. Operating in **10+** countries in both Asia and America. Achieved **99%** system availability, taking in new orders all the time. Released high-profile business projects throughout the years **without** incident.

Redesigned a **100+ million-record** database of critical client data for long-term correctness. The operation was observable, with zero data loss. Our sellers enjoy more accurate logistics thanks to this.

Developed systems supporting **100k+** queries per second. Increased performance of top highest-traffic buyer-facing APIs by up to **95%**. That's 80ms down to 3ms and in some cases, 800ms to 40ms during sale campaigns.

Reduced cache storage required by 50% without loss of consistency.

SENIOR DATA ENGINEER, SHOPEE FOOD - 2019-2021

Led Data Team at Shopee Food to build recommendation and delivery optimization systems. Number 1 food delivery service in Viet Nam. Over 500k orders per day.

Achieved **10%** conversion rate for recommendations. Bringing in significantly more revenue.

Reduced late orders by 75%.

SENIOR DATA ENGINEER, GARENA - 2016-2019

Go-to engineer of data processing pipelines. Processed data of the company's top popular online games in South East Asia. Built recommendation system for the games.

Supported terabytes of daily data from over **200 millions** of players.

Recommendations increased revenue up to 50%.

Popularized type-safe Scala API of Apache Spark to the team, an advance practice that didn't have step-by-step guidance at the time, and achieved higher degree of correctness for our data.

Education

University of Science, Ho Chi Minh, Viet Nam – B.S Computer Science, 2016

Cumulative GPA: 3.89. English: TOEFL iBT 99

Skills

LEADERSHIP

Led of a team of 3.

Led the development of Shopee Food's recommendation and other data projects from design to release.

DISTRIBUTED SYSTEMS

Design high performance, high availability, consistent, and almost-infinite scalability systems.

Design zero-downtime release and API migration.

Design micro-service architecture with sync (http, RPC) and async (queues) communication;

Design data storage using SQL databases or caches.

Domain-driven design.

MICRO-SERVICE & BACKEND TOOLS

TCP Load Balancer. Kubernetes-like Orchestrator. Distributed tools such as Config Manager, Lock... Temporal-like Workflow Engine.

TCP/HTTP web server. Kafka message queue. Redis-like & MySQL-like storages.

DATA TOOLS

Apache Spark: the most popular open-source Data Processing Framework in the world. I also contributed support for Scala value class. This allows specifying different business logics on top of values with the same data-type.

SparkML, Hadoop, Apache Airflow

OBSERVABILITY TOOLS

Grafana, Prometheus, Jaeger

PROGRAMMING LANGUAGES

Golang

Previously: Python, Scala, Java

PROJECT MANAGEMENT & TEAMWORK

Adapted version of Agile, Pair Programming, Jira, Scrum Poker.

Awards

2nd Prize in Vietnamese Talent Award in Technology 2015.

Qualified for 2nd national round of Microsoft Imagine Cup 2013.