SEAN TRISTAN YU

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Introduction

A brief introduction before delving into the details about me. I finished a business course undergrad but took the leap to software development after graduation. Since then, I have not looked back but used my entrepreneurial drive to create value, general inclination to learn, and collaborate with people to build software solutions.

I love learning new skills and paradigms that may improve or challenge existing ones. I have a wide array of interests that I garnered along the way that range from Functional Programming, Front-end and Back-end Development, Distributed Systems, Observability, Leadership, Team Management, and FinTech. I'm interested now in building maintainable solutions, sustainably and collaboratively, with a team that brings positive impact to the world.

RELEVANT WORK EXPERIENCE

Tech Lead Xendit March 2024 - Present

- Promoted to lead Xendit's Payment team, which was previously 4 different teams of 30+ engineers, now merged into 1 team of 11 engineers.
- Reduced monthly alerts from 900 to 100 with 86% accuracy by analyzing PagerDuty data, creating
 categorization systems, conducting biweekly alert reviews with the team, and consolidating all monitors to a
 single Terraform repository. Other teams adopted this practice after seeing results.
- Eliminated severe incidents to 0 (e.g. money loss and system downtime) in the second half of the year by implementing and iterating on a better release process with checklists, dual approvals, mandatory flaky test fixes, chaos testing initiatives to find system faults.
- Cut payment system costs by \$9,000/month through building cost dashboards using AWS Athena/Billing, creating strategic workstreams. and rightsizing resources. We downscaled AWS Aurora DB w/o downtime, killed 16 AWS Aurora DB, 14 Elasticache instances and more.
- Reduced issues of on call engineers from 6 to 1 issue a day. I pulled data of months of on call support issues by piping it to GSheets and finding trends and worked with multiple cross teams to create a solution and do necessary rearchitecture.
- Delivered all improvements while delivering features and new capabilities for Xendit Payment.

Staff Software Engineer

Xendit

May 2022 - March 2024

- Built a new experimental product by designing cross-team architecture, leading daily syncs, creating PMO trackers, and coaching engineers on technical decisions—delivering on time.
- Addressed capacity planning gaps after bottleneck incidents by leading SQL and RabbitMQ load-testing sessions with Gatling, then embedding testing requirements into our Definition of Done. This lessened system capacity issues
- Improved developer velocity for infrastructure changes by partnering with the Infrastructure team to introduce Atlantis for pull request-based Terraform deployments, accelerating feedback loops and enabling faster experimentation.
- Reduced Mean Time to Resolve significantly for queue-related incidents by building a distributed tracing plugin for queue workers (RabbitMQ, Kafka, SQS), enabling faster root cause analysis and bottleneck identification by having end to end visibility from http server to async processes

- Connected to Distributed Tracing, I envisioned near 100% visibility on all workloads in Xendit. I executed this by enhancing the library with support for cron, MongoDB, cache, and Kafka and recruiting engineers to improve bugs and expand service coverage. Majority of workloads now have distributed tracing
- Collaborated with staff engineers to consolidate Xendit's payment microservices. Led a team to unify different payment schemas by creating end-to-end payment diagrams, grokked various payment methods, and authoring a North Star. Built a system that collects payment events from multiple sources into one unified format on Kafka, enabling fraud detection and dashboard analytics.
- Executed no-downtime migration of services to CockroachDB from AWS Aurora RDS by leading a team on implementing transaction buffering, using AWS DMS for data migration, collaborating with CockroachDB team, and creating a migration playbook to execute on migration. Now, services have zero-downtime database upgrades and are availability zone failure resistant.
- Leveraged Tech: Domain Driven Design, Event Storming, Distributed Tracing, Terraform, Gatling, Load Testing, Atlantis, Kafka, AWS SQS, CockroachDB, AWS Aurora RDS

Senior Software Engineer

Xendit

May 2022 - March 2024

- Inherited hundreds of unmaintainable Datadog monitors generating daily false positives. Assessed team sentiment and current state, then migrated all monitors to Terraform—identifying useful monitors and reducing false positives while improving service visibility.
- Built a Redis and Go-based delayed task scheduler for Direct Debit payment expiration after evaluating
 options with senior engineers. The solution has been in production for 3 years, expanding to support multiple
 delayed processing use cases.
- Addressed limited service visibility by studying distributed tracing and building a standardization library for microservices. Sparked organization-wide tracing adoption that significantly reduced mean time to diagnosis across all teams.
- Resolved payment processing failures during traffic bursts by rearchitecting the RabbitMQ queues and
 workers to horizontally scale based on queue backlog, implementing batch message fetching and goroutines
 for resource optimization—ensuring stability during flash sales and paydays.
- Eliminated Postgres bottlenecks during exponential 30% MoM product growth through load testing that revealed index misuse and inefficient querying patterns. Led safe implementation of code and schema changes, added monitoring dashboards, and achieved 45x query performance improvements.
- Introduced Datadog Real User Monitoring and Session Replay to diagnose declining payment completion rates. Identified iOS OTP auto-completion issues causing session drop-offs, implemented fixes, and improved payment completion rates
- Contributed extensively to organizational open-source libraries beyond distributed tracing, including code reviews and bug fixes for queue processing libraries. Recognized as "Wizard of OSS" for top engineering contributions across the organization.
- Leveraged Tech and Knowledge: RabbitMQ, Golang, Redis, Datadog, React, Kubernetes, Typescript, Nodejs, Helm, AWS SQS, AWS Aurora RDS

Senior Software Developer

ZAP Philippines

October 2018 - November 2020

- Built a couple of web and mobile apps using statically typed Functional Programming languages and Serverless solutions
- Built a web app, android app and iOS app simultaneously with a single team by only using one codebase through using Purescript a language that compiles to javascript / TypeScript, react-native-web, expo and more.
 - → <u>Leveraged Tech and Knowledge</u>: **Purescript**, Typescript, Nodejs, Express, React Native, AWS CDK, DynamoDB and other AWS services
- Built low cost full stack apps using Serverless technology AWS DynamoDB, AWS Lambda, AWS Gateway and Purescript.
- Held internal teaching sessions on using Purescript in Production for both Frontend (React.js) and Backend (Node.js) to equip developers skill to contribute full stack on multi platform projects

Junior Software Developer

ZAP Philippines

July 2017 - September 2018

- Revamped company's mobile app with features such as QR scanning, and OTA mobile app updates that currently has around 20,000 active installs through learning cross- platform mobile dev on the go, leading a team of four
 - → Leveraged Tech and Knowledge: React-Native, GraphQL, Microsoft AppCenter, Redux, Javascript, Git
- Reduced company's development team's incoming customer support tickets by building an internal admin web application using Scala Play with a team of four other jr devs
 - → Leveraged Tech and Knowledge: Scala, Play framework, PSQL, NGINX, HTML/CSS/JS, Git

Lead Software Developer

Taikuun

May 2017 - March 2019

- Built a tech startup on the side with a couple of talented people from different tech companies in the PH while working full time.
- Allowed the team to gather high quality user insights for our target market by developing a mobile-first web
 application with chat functionality, listing creation, and proper user authentication through close collaboration
 with a part time product designer and product manager
 - → <u>Leveraged Tech and Knowledge:</u> Reactjs, Redux, Redux-saga, Webpack, Heroku, Nodejs, Git

Internship mClinica May 2015 - June 2015

- Took a voluntary internship since I want to learn about tech startups and code
- Built the company's landing page through learning and using basic HTML5, CSS and Javascript

EDUCATION

Quezon City, PH

Ateneo De Manila University

2013 - 2017

- BS Information Technology Entrepreneurship
- Gained 150 active users that did transactions for our group's thesis (start a tech business) by building a simple
 marketplace web app through self learning basic Reactjs for front-end and Nodejs with MongoDB for the
 back-end