

Amrut Prabhu

Currently based in Singapore

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Experience

Shopee (Sea Ltd.)

SENIOR SOFTWARE ENGINEER

Singapore

Jan 2022 - present

SOFTWARE ENGINEER

Jun 2020 - Dec 2021

- Upgrading the **company's core service mesh platform**, as part of the Application Infrastructure division.
- Overseeing the rebuild of the data plane component of the service mesh.
- **Increased throughput by 10%** and **reduced latency by up to 50%** by investigating and optimizing performance bottlenecks.
- Designed and implemented **end-to-end fault tolerance features** like circuit breaker, chaos injection and rate limiter.
- Developed **advanced rate limiting features** like distributed rate limiter, support for bursty traffic, and rate limiting by request priority.
- Increased test coverage for HTTP APIs by 40% by constructing a portable e2e test environment to improve system stability.
- Tech stack: Golang, MySQL, Protobuf, Bash, Python, Grafana, Prometheus, Linux

Shopee (Sea Ltd.)

SOFTWARE ENGINEER INTERN

Singapore

May 2019 - Aug 2019

- Worked as a Mobile Engineer (React Native) in the App team.
- **Reduced the loading time** of the product review images panel **by over 50%** by overhauling the technology behind it to React Native.
- **Accelerated the creation of navigation routes** for operators and developers by designing a web application using React & Redux.
- Tech stack: React Native, React JS, Redux, Flow, Node.js, Jest, GitLab CI

Works Applications

SOFTWARE ENGINEER INTERN

Singapore

May 2018 - Aug 2018

- Upgraded the internal framework that is used to expedite development of customized enterprise (ERP) software.
- Enhanced the **import feature** by supporting a new data format and improved performance by using batch CRUD operations.
- **Automated deployment** of the microservice application to be a single step process using Jenkins, Docker and Bash script.
- Tech stack: Java, JavaScript, Jenkins, Nginx, Docker, LESS

Skills

Proficient Go / Golang, Java, JavaScript, Git

Familiar Python, MySQL, Prometheus, Grafana, Bash, React JS, HTML, CSS, SCSS

Prior Experience Node.js, C++, React Native, Nginx, Docker, R

Education

National University of Singapore

BACHELOR OF COMPUTING (HONORS) IN COMPUTER SCIENCE

Singapore

Aug 2016 - Jun 2020

- **GPA:** 4.73 / 5 or 3.78 / 4 (Highest Distinction, Dean's List)
- **Relevant Courses Taken:** Software Engineering, Parallel and Distributed Algorithms, Parallel Computing, Data Structures and Algorithms
- **Teaching Assistant:** Software Engineering, Data Structures and Algorithms, Machine Learning

Projects

The Streamer Awards

THESTREAMERAWARDS.COM

Golang, React JS, JavaScript, MySQL, Prometheus, Linux, Nginx

Jan 2022 - present

- Managed and developed the website, voting system and fantasy pick'em contest for an awards show.
- Designed a scalable and resilient system to handle a peak of **6,300 concurrent users** and **submissions from 300,000 users**.
- **Optimized resource usage** and **reduced latency** by designing suitable data structures, caching at multiple levels, and using a CDN.
- Integrated with Google Auth and added rate limits by IP address to **prevent spam votes** and deter malicious users.

TwitchCamp

TWITCHCAMP.GITHUB.IO

Golang, React JS, JavaScript, Twitch API

Sep 2021

- Recognized the need for, and conceived a website for TwitchCamp- an event organized by popular live-streamers.
- Publicized the website to get 190,000 unique users, 850,000 page visits and a peak of **4,000 concurrent users**.
- Integrated the application with **Twitch API** to fetch the latest data.
- **Reduced latency** by making concurrent API calls, and adhered to Twitch rate limits by caching results.

TEAMMATES

TEAMMATESV4.APPSPOT.COM

Java, Angular, TypeScript, JMeter

- TEAMMATES is an open source feedback platform that has over 350,000 users.
- Architected and led a team of 3 to develop an automated **Load & Performance testing framework** using the JMeter Java API.
- Developed a **feature to regenerate the unique links** to a user's feedback pages.