

# Alistair Ong

Website | Github | LinkedIn | ongalistair@gmail.com

## EDUCATION

### NATIONAL UNIVERSITY OF SINGAPORE

BComp in Computer Science  
(Honours)

University Scholars  
Programme

Grad. Dec 2020 | Singapore

### ANGLO-CHINESE SCHOOL (INDEPENDENT)

International Baccalaureate  
Grad. Dec 2013 | Singapore

## AWARDS

2018	USP Honour Roll
2012	Standard Chartered Most Creative Apprentice
2010	Edusave Scholarships for Integrated Programme Schools (ESIP)

## SKILLS

### LANGUAGES

Over 5000 Lines:

Go • Typescript

Over 1000 Lines:

C++ • Python • Java

### FRAMEWORKS AND TOOLS

Elasticsearch • Scylla • Redis  
gRPC • MySQL • Kafka  
Docker • Kubernetes

## COURSEWORK

### UNDERGRADUATE

Artificial Intelligence  
Algorithms and Complexity  
Computer Networks  
Operating Systems  
Software Engineering

## SOCIETIES

NUS Students' Computing Club  
NUS University Scholars Club  
NUS USP Livecore

## EXPERIENCE

### GARENA | SOFTWARE ENGINEER, BACKEND

Dec 2020 – Present | Singapore, SG

- Conceptualized and implemented a brand new messaging service for the Booyah! livestreaming app.  
From stress tests, able to take around max 16k QPS per chat channel (hot partition), 100k QPS and 1M CCU.  
Made with **Go**, **Redis** and **ScyllaDB**.
- Tuned, initialized, and used **Elasticsearch** for performant search, filter, sort, pagination use in our club feature service.

### SHOPEE | SOFTWARE ENGINEERING INTERN

May 2020 – Jul 2020 | Singapore, SG

- Generalized filtering mechanism to enable greater filter combinations and more complex filtering logic. Done in Golang.
- Extracted item-item degree associations based on user clicks using Hadoop MapReduce.

### NINJA VAN | SOFTWARE ENGINEERING INTERN

Jan 2020 – Apr 2020 | Singapore, SG

- Enabled greater reliability in notification system by implementing dead letter queues with Kafka streams.
- Optimizing MySQL migrations with GitHub's gh-ost for faster performance.

### SEA GROUP | SOFTWARE ENGINEERING INTERN

May 2019 – Aug 2019 | Singapore, SG

- Improved SeaTalk speed by 27x for web and desktop app by preventing excessive re-rendering.
- Created a React-Redux web app for prototyping an events management platform.

### NATIONAL UNIVERSITY OF SINGAPORE | TEACHING ASSISTANT, COMPUTER ARCHITECTURE

Aug 2018 – Dec 2018 | Singapore, SG

Teaching assistant for around 100 students dealing with:

- Combinatorial and sequential circuit design techniques
- Processor datapath and control (execution cycles)
- CPU Pipelining and memory caching

## LEADERSHIP

2019 Peer Mentor

2017 Vice Project Director

2017 Vice Captain

2017 Orientation Group Leader

NUS USP Computing

SoC Sports Camp 2018

NUS Students' Computing Club

NUS USP Badminton

Freshmen Orientation Programme

University Scholars Club