Haosong Liu

Backend engineer with a focus on web application API development, was doing some distributed data processing, computational geometry and active fluid mechanics research while still in school.

Education

2018-2020 **Master of Science** Electrical and Computer Engineering; **University of Miami** (Coral Gables, FL)

2016-2018 **Bachelor of Engineering** Material Science and Engineering; **University of Minnesota – Twin** Cities (Minneapolis, MN)

2014-2018 **Bachelor of Engineering** Material Science and Engineering; **Sichuan University** Cities (Chengdu, Sichuan, China)

Work Experience

Backend Software Engineer@Longfor Inc | Beijing , China

Short text containing the type of work done, results obtained, lessons learned and other remarks. Can also include lists and links:

- Software Architecture Group
  - "Hawkeye" Monitoring System: To provide better real-time visibility and traceability of the production system, I developed a "Hawkeye" monitoring system which collects API request data via Prometheus and reports to the exporter periodically using UDP, the data then being visualized on Grafana, metric data is collected and transferred in a non-blocking asynchronous way using a Single Thread Pool & Blocking Queue to improve performance while still preserves the exact order of the metric data been sent;
  - Distributed Universally Unique ID Generator: Implemented Snowflake algorithm to generate Universally Unique ID (UUID) which provides a secure and high-performance infrastructure tool for the dev teams to generate UUIDs that satisfy the following properties: 1. Strictly Monotonic increase; 2. Randomized ID generation.
- Unified Login Group
  - To provide a unified log-in customer experience for the 40 million Users and over 1 million active Daily Active Users (DAU) under the Longfor franchise, we developed a unified member login and management system, empowering tens of products and services across the entire corporation;
  - Innovatively used Redis to store user log-in sessions to eliminate the need for a dedicated Central Authentication Server (CAS) while still managed to solve the CORS problem in most Single Sign-on (SSO) system.
- Ads Platform

- Involved in initial design of a simplified ads platform for internal ads tenants including SSP, Ads Orchestration, Ads Recall, DSP modules, for MVP version, Pacing, Ads Exchange and Ranking modules are excluded;
- Independently implemented Ads Recall and Ads Document Generation module.
- Advised and involved in cross-department project development, promoted the integration of the ads platform into other systems;

Backend Software Engineer@WirelessCar | Beijing , China

Short text containing the type of work done, results obtained, lessons learned and other remarks. Can also include lists and links:

- VCC Solution
  - Designed and implemented Emergency Call and Breakdown Call solutions for integration towards Geely TSP and WirelessCar Internal services;

Technical Experience

Programming Languages

Java Here, we have an itemization, where we only want to add descriptions to the first few items, but still want to mention some others together at the end. A format that works well here is a description list where the first few items have their first word emphasized, and the last item contains the final few emphasized terms. Notice the reasonably nice page break in the pdf version, which wouldn't happen if we generated the pdf via html.

Python Description of your experience with second-lang, perhaps again including a [link] **ref**, this time placing the url reference elsewhere in the document to reduce clutter (see source file).

obscure-but-impressive-lang: We both know this one's pushing it.

Basic knowledge of **C**, **x86 assembly**, **forth**, **Common Lisp**

Extra Section, Call it Whatever You Want

- Human Languages:
  - English (native speaker)
  - ???
  - This is what a nested list looks like.
- Random tidbit
- Other sort of impressive-sounding thing you did

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