KARTHIK NEDUNCHEZHIYAN

A full stack developer || Rustacean ## || Distributed systems || Cloud computing || Loves to work with virtualization ## containerization || Open source contributor

EXPERIENCE

Zoho Corporation, Chennai — Zoho Catalyst - Zoho's serverless platform

Aug 2018 - PRESENT [36 Months]

- Researched, Designed, and Developed own on-demand secure, distributed, fault-tolerant sandbox as a service system which is the engine for Zoho Catalyst cloud functions and services. This system can efficiently handle thousands of untrusted workloads and spin fresh sandbox under 250ms (cold start). Designed orchestration layer using Go and Sandbox engine using Rust.
- Designed and Developed a query layer for Zoho Catalyst datastore using GraphQL.
- Maintainer of Zoho Catalyst cloud function's Node.js runtime.
- Maintainer of Zoho Catalyst Javascript client SDK.
- Worked on the Zoho Catalyst front end design and development.

Zoho Corporation, Chennai — *Zoho CRM - Server Team*

MAY 2018 - JUL 2018 [3 Months]

- Maintained and Improved the Zoho CRM sales inbox backend system.
- Research on GraphQL implementation and design principles.

Zoho Corporation, Chennai — *Intern*

JAN 2018 - APR 2018 [4 Months]

- Designed and Developed a distributed backend system to process and store the huge mail metadata of Zoho CRM sales inbox.
- Implemented the Java client library for the Zookeeper and Hbase-Hadoop APIs.

EDUCATION

Anna University, Chennai (India) — *Electronics & Instrumentation Engineering (E&I)*

APR 2014 - APR 2018

College degree focused on electronics and instrumentation.

Bharath Montessori, Tenkasi (India) — Biology [10th-90%, 12th-85%]

Academic Year 2011 - 2014

High School studies focused on mathematics and biology.

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SKILLS

Distributed Systems

Cloud | Serverless Computing

Rust-lang | Node.JS | Java

Kubernetes | Docker

Virtualization | Containerization

System Programming

SELECTED OPEN-SOURCE CONTRIBUTIONS

<u>Firecracker-microvm:</u> virtualization technology for serverless computing.

Rust-vmm/event-manager: I/O notifier wrapper around linux epoll.

Rust-vmm/vmm-sys-util: helpers and utils used by various VMM.

Neonmoe/minreq: simple, minimal-dependency rust HTTP client.

SELECTED PERSONEL PROJECTS

Image Mimic Genetic Algorithm: This unsupervised genetic algorithm I have created will try to mimic the target image. Source-code: here

2048 Bot: Solves the 2048 game using the min-max algorithm and iterative deepening for efficiency.

PROFILES

LinkedIn | Github | HackerEarth |

HackerRank