

# KARTHIK NEDUNCHEZHIAN

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

I always love to keep my mind occupied and I love the way that programming teaches me how to think. I like to engage myself in an environment where I can learn something new each day and solve interesting unsolved problems.

## 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.
- 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

APR 2014 - APR 2018

### Bharath Montessori, Tenkasi (India) — Biology

Academic Year 2011 - 2014

High School studies focused on Mathematics & Biology “10th-90%, 12th-85%”. Member of the school basketball and athletics team.

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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

[Firecracker-microvm: 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](#)