

Md. Emruz Hossain

Software Engineer

Passionate software engineer with 1.5 years of working experience. Built OSS tools for Kubernetes using GO for deploying database in Kubernetes and for disaster recovery. Enjoy interacting with end users.



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WORK EXPERIENCE

Software Engineer at *AppsCode Ltd.* ↗

📍 Dhaka, Bangladesh November 2017-Present

Responsibilities

- Design, develop and manage disaster recovery tool Stash that backup Kubernetes volumes, databases and cluster's resource definition.
- Worked on database operator KubeDB that deploy and manages most popular databases inside Kubernetes cluster in Kubernetes native way.
- Added support for Prometheus monitoring in various AppsCode's tools.
- Provide support to the users of our various tools.

Intern at *AppsCode Ltd.* ↗

📍 Dhaka, Bangladesh November 2016-November 2016

Responsibilities

- Build a single page library website using backbone js.
- Write e2e test for the website using Selenium WebDriver, Mocha etc.

EDUCATION

BSc. in Computer Science & Engineering

Chittagong University of Engineering & Technology

📍 Chittagong, Bangladesh March 2013 - November 2017

ACHIEVEMENTS

Competitive Programming

November 2013-Present

- 7 th at ACM International Collegiate Programming Contest, Dhaka Regional 2016.
- 11th at CUET National Collegiate Programming Contest 2017.
- 14th at UAP National Collegiate Programming Contest 2016.
- Solved 700+ problems on different Online Judges.
- Participated in many national and international onsite programming contest with team.

Open Source Contribution

March 2018-Present

Contributed on open source projects including Kubernetes, Stash, KubeDB, kubed, osm etc.

Extra Curriculum

- Former programming mentor of CUET Computer Club.
- Organizing member CUET NCPC 2017.
- Provided programming problem set in several IUPC.

SKILLS



PROJECTS

Stash 569 April 2018-Present

A disaster recovery tool for Kubernetes that backup and restore Kubernetes volumes, databases and cluster resource definition.

My Contribution

- Design & implement new API to support database backup, instant backup triggering, default backup, in-place recovery.
- Add support for Prometheus monitoring.
- Improved documentation & e2e testing.

KubeDB 634 July 2018-Present

A database operator for Kubernetes that deploy and manages most popular databases inside Kubernetes cluster in user friendly Kubernetes native way.

My Contribution

- Add support for providing custom configuration for the databases through a configuration file.
- Added support for configuring databases using environment variables.
- Added support for Point in Time Recovery (PITR) for PostgreSQL.
- Added support for Prometheus monitoring of database operator

Riverine Vehicle Tracking System with Overload Detection Academic Project

A real time tracking system for riverine vehicles such as launch, ferry etc. including overload detection.

My Contribution

- Design and build a prototype of **Overload Detection Unit** (Arduino + Sonar).
- Build a **Central Monitoring Panel** (Webpage).
- Build an **App for Vessel** (Desktop app using Electron Framework).
- Build an **User App** (Cordova, JQuery Mobile).