ABDULLAH AL MARUF
SOFTWARE ENGINEER

LIFE PHILOSOPHY

"Do not fear failure but rather fear not trying"

- Roy T. Bennett

CONTACT

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- 📍 Waco, TX, USA

EDUCATION

M.S. in Computer Science
Baylor University
Session 2020-Present

B.Sc. in Computer Science & Engineering
Chittagong University of Engineering & Technology
Session 2012-2017

TECHNICAL SKILLS

GO C C++ Java SQL

Kubernetes Docker AWS

GCP Azure PostgreSQL

MySQL MongoDB Bash

Git Spring Boot Linux

STRENGTHS

Team Work Self Learning

Communication Optimist

Problem Solving

PROFILE

Passionate software engineer with **4** years of working experience in both developing **Kubernetes** tools in **GO** and managing microservice based infrastructure in production. Acted as team lead of AppsCode's **KubeDB project** for more than a year. Love to participate in **programming contests**. An enthusiastic **team player**.

EXPERIENCE

Graduate Research Assistant
Baylor Cloudhubs Lab

📅 *Jan, 2021 - Present*
📍 *Waco, TX, USA*

🔗 https://github.com/cloudhubs

- Performed telemetry log tracing analysis to reconstruct Microservices architecture.
- Performed static code analysis of java spring boot to detect JMS and Rest communication between Microservices.
- Technology Used: **Java, Spring Boot, Docker, Docker Compose, Kubernetes.**

Intern Researcher
Red Hat Research

📅 *Summer 2021*
📍 *Brno, CZ (Remote)*

🔗 https://research.redhat.com/

- Led a small team of undergraduate students to conduct research on technical debt.
- Analyzed version controlled codebase to find probable code debts.
- Performed literature mapping study on technical debt and code smells.
- Technology Used: **Java, Spring Boot, Git.**

DevOps Engineer
Digital Healthcare Solutions

📅 *Feb, 2020 - Dec, 2020*
📍 *Dhaka, Bangladesh*

🔗 https://dh.health

Formerly known as Telenor Health. DH makes high quality health services and health financing accessible for all.

- Concentrated on the migration of infrastructure to **Kubernetes**.
- Experienced hybrid cloud infrastructure consisting of **aws** and openstack private cloud.
- Exercised **cloud-native** best practices for monitoring and alerting.
- Technology Used: **AWS, Kubernetes, Ansible, Terraform, Docker, Docker Compose, Traefik, Nginx, HAProxy, Prometheus, etc.**

PROUD OF

Competitive Programming

- Solved 1100+ problems on different Online Judges.
- Divisional Champion of ACM ICPC Dhaka Regional '14 & '15

Open Source Participation

User, follower and contributor.

KubeDB's growth

From very few to thousands of daily users.

Leadership

Served as President of CUET COMPUTER CLUB. Also acted as Project Head of KubeDB.

TOP OPEN SOURCE CONTRIBUTION

kubernetes/kubernetes

Production-Grade Container Orchestration.

kubedb

Database management tool for Kubernetes.

stash

Backup and restore plugin for Stash.

kmodules/client-go

Kubernetes client-go utilities

appscode/analytics

Essential analytics for OSS

Find me online

EXPERIENCE

SOFTWARE ENGINEER
May, 2017 - Jan, 2020
AppsCode Ltd.
Dhaka, Bangladesh

Subsidiary company of AppsCode Inc. A platform for automate deployment, scaling, and management of containerized applications.

➤ Worked to build **Kubernetes controller** tools to utilize Kubernetes services.

➤ Maintenance and development of **KubeDB** project, A database management tool for Kubernetes.

➤ **Led team members** to design and implement the core features of KubeDB.

➤ Contributed and worked with many **open source projects**.

➤ Used: **Go**, **Kubernetes**, **Docker**, **MongoDB**, **Elasticsearch**, **GCP**, **AWS**, **Azure**.

TOP PROJECTS

KubeDB

🔗 https://kubedb.com

A cloud-native database management solution for Kubernetes to simplify and automate provisioning, backup, recovery, failure detection for various popular databases.

➤ Led a small team to design & implement the core features.

➤ Designed and implemented various database support from scratch.

➤ Designed and implemented MongoDB clustering system support.

➤ Improved Postgresql and Elasticsearch clustering system.

➤ Worked with Prometheus exporters to export database metrics.

Stash

🔗 https://appscode.com/products/stash

A volume backup tool designed for Kubernetes. Under the hood, it uses Restic for backup/restore purposes.

➤ Improved database backup system using stash.

➤ Designed and implemented Elasticsearch and MongoDB cluster backup system from scratch.

➤ Integrated Stash support within Kubedb to backup/restore dbs.

BearMapping

A team-management project that uses machine learning to do an automatic literature review. It identifies relevant research papers that correspond to particular research questions.

➤ The backend was built with Java Spring Boot and Python, and the frontend was built with ReactJS.

➤ Followed cloud-native best practices to develop and deploy the microservices.

Microservice Architecture (MSA) Reconstruction

➤ MSA reconstruction from tracing log.

➤ Used istio to collect the tracing log, JAVA to process it, and Graphviz to generate the architecture graph.