

Prajwal Shenoy

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EDUCATION

Northeastern University, Boston MA

Expected May 2024

Khoury College of Computer Science

Masters of Science Computer Science

GPA - 4 / 4

Related Courses: Programming Design Paradigm CS 5010, DBMS CS 5200, Algorithms CS 5800, Computer Systems CS 5600

Dayananda Sagar College of Engineering, Bangalore, India

December 2020

Bachelor of Engineering, Electronics and Communication

SKILLS

Programming Languages: (Backend Software Development) Python, Java, GoLang, C / C++, BASH.

DevOps tools: Kubernetes, Docker, Ansible, GitLab CI, Terraform, AWS, OpenStack, Unix/Linux, Github, CKAD.

Frameworks & Tools: Keras, TensorFlow, Flask, Kafka, RabbitMQ, Jira.

EXPERIENCE

Cisco Systems, Bangalore, Karnataka

January 2020 - July 2022

Software Engineer 2

- Played a key role in the migration of 10+ internal monolithic backend applications to microservices leveraging Kubernetes, resulting in a notable reduction in time to market and a significant enhancement in scalability.
- Designed, developed, and tested a Python module and a CLI tool for fetching and consuming secrets from Conjure, revamping the security of the microservices-based architecture.
- Led the development of a scalable Webex notifications system and integrated it with Kubernetes PaaS solution. The application provided notifications for events such as pod failure and SSL certificate expiration and enhanced observability.
- Created pipelines to backup Kubernetes clusters and tested the recovery of partial and complete Kubernetes cluster failure using Velero backups, revamping disaster recovery capabilities. Helped backup 10 plus clusters on a schedule.
- Built processes to pursue and log Kubernetes logs into Logstash, label appropriately, and query using Kibana with Elastic Search, equipped application visibility and troubleshooting capabilities for 50 plus users of the Kubernetes platform.
- Maintained and updated applications in a full-fledged IaaS service for an on-premise OpenStack cloud environment, resulting in significant improvements to service quality and heightened customer satisfaction and benefiting more than 10 teams.
- Developed an automated GitLab CI/CD pipeline to spin up 10 plus Kubernetes clusters with Ansible and Terraform, set up load balancers using customized Kubeadm for faster and more consistent deployments.
- Implemented a Gitlab CI/CD tool utilizing the OpenStack SDK for Python, enabling pipeline-activated notifications to clients about infrastructure outages and changes to VMs, thereby improving client satisfaction and reducing downtime.

Center for Advanced Robotics - DSCE, Bangalore, Karnataka

June 2018 - August 2018

Software Engineering Intern

- Directed implementation of an IoT system controlling a roofing solution to provide stable lighting while minimizing the usage of artificial lighting. The solution reduced lighting costs by 35%.
- Executed the MQTT protocol and integrated multiple NodeMCU nodes to deliver a consolidated view of the whole warehouse while controlling specific sections separately. The solution was tested with 200 nodes.

PROJECTS

Stock Portfolio Management Software, CS 5010

October 2022 - December 2022

- Led the execution of a GUI-based portfolio management system built (and extended) with Java and MVC architecture. The application facilitated multiple users having multiple portfolios. It fetched stock prices from the alpha vantage API.
- Track the performance of each portfolio with a graph, tested the performance of the application with more than 20 portfolios.
- Featured Loading users from a file as well as the UI. Buying and Selling of stocks in a portfolio were tracked.

Simulation of UPI Gateway System Database, CS 5200

October 2022 - December 2022

- Formulated and structured an SQL database required to simulate a part of the backend database for a payment gateway system.
- Implemented procedures and functions on SQL servers to process payments resulting in atomicity for all platform transactions. Also encrypted passwords for security.

Personal, Detecting Diabetes Retinopathy

March 2021 - April 2021

- Created a multilevel Residual Network to detect and diagnose Diabetes Retinopathy into 5 different stages.
- Achieved an accuracy of 83.9% with a training dataset of 3662 images. Created an application to detect the same using the saved hyperparameters.

Dayananda Sagar College of Engineering, Automation of Grades Processing

January 2019 - May 2020

- Automated the process of extracting and processing grade-related information from PDFs and saving it as a .csv file. Improved the speed by a factor of 15.
- Devised a cloud-native web app for easy access. The application is used across all departments in college.