Sudipto Baral

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WORK EXPERIENCE

Software Engineer   **Mar 2021 - Jul 2023**
BRAC IT | Dhaka, Bangladesh
- Developed high-quality, efficient, and resilient code for various clients and internal enterprise-level backends, leveraging Python, Django, Node.js, and Golang.
- Implemented secure authentication mechanisms and role-based access controls, incorporating technologies such as Keycloak, JWT authentication, OAuth, and passport.js.
- Successfully integrated an open-source object storage solution (Minio), resulting in a 30% reduction in costs compared to AWS S3 buckets.
- Utilized GitLab pipelines, Kubernetes, Docker, and other automation tools to optimize the company's CI/CD process, playing a pivotal role in achieving CMMI-DEV Level 3 certification for the company.

Skills: DevOps, Backend, Python, Django, Docker, docker-compose, minio, Keycloak, Oauth, roles-permission, rest-API, microservices, NodeJs, Gitlab pipelines, Kubernetes, GCP, project management, business analysis.

Teaching Assistant (Operating System Course)   **Sep 2023 - Present**
Western University | London, Ontario
- Supporting students in understanding complex OS concepts, ensuring their academic success.
- Assist in grading assignments and delivering constructive feedback to facilitate student improvement.
- Conduct interactive tutorials and practical labs to enhance students' hands-on skills.
- Collaborate with the professor to ensure a cohesive and effective learning environment.

Skills: C programming, Linux, Teaching

OPENSOURCE EXPERIENCE

Google Summer of Code 2023 @gcp_scanner   **View in GitHub**
- Enhanced test coverage by adding new unit tests, leading to a 10% increase in overall coverage.
- Conducted significant refactoring of the crawling module to improve modularity and uphold the DRY principle.
- Expanded the application's capabilities to scan a broader range of GCP resources, increasing its potential use cases.

Skills: python, Pytest, design pattern, Google Cloud platform, GitHub actions, project management.

Keptn Lifecycle Toolkit @cncf   **View in GitHub**
- Contributed approximately **700 lines** of code to the project, focusing on implementing new features, bug fixes, and writing unit tests in Golang.
- Implemented Datadog metric provider integration. [PR link: #948]
- Collaborated on the development and improvement of documentation materials.

Skills: Golang, unit testing, Kubernetes, Helm, Datadog, Prometheus, Grafana, ArgoCD, vault, Terraform

CF-Stats @personal project   **View in GitHub**
- Utilized GitHub Actions to generate real-time Codeforces user stat cards and badges for readme files.
- Implemented Python design patterns to enable the consumption of Codeforces API in a scalable manner.
- Employed Pytest for feature-level unit testing and implemented GitHub Actions for seamless test pipeline execution.
- Ensured proper documentation and adhered to open-source best practices, including branch naming conventions, commit messages, and issue tracking.

Skills: Python, GitHub Actions, documentation, project management, pytest

EDUCATION

MSc in Computer Science   **Sep 2023 - Dec 2024**
Western University (Ontario, Canada)