

Sudipto Baral

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Experienced #opensource contributor with a proven track record in large projects from **Google**, **Apache**, **CNCF** and having a strong understanding of open-source culture and community engagement. Proficient in backend development, cloud computing, and Kubernetes.

EDUCATION

Western University | Ontario, Canada | [114 on QS Ranking](#)

Expected Dec 2024

MSc Computer Science, Thesis in Network Intrusion Detection and Explanation using XAI and LLMs; Fully funded research scholar.
Current CGPA 4.0/4.0 (Above 90%)

OPENSOURCE EXPERIENCE

MLH Fellowship (Opensource Internship) [@apache/airflow](#)

- Leading the migration of Airflow from connexionv2 to connexionv3.
- Focusing on Kubernetes operator and container-based application integration with Airflow.
- Engaging in documentation enhancement, testing of release candidates, improving unit tests, and maintaining an active presence within the Airflow community and Slack channels.
- Some significant PRs: [#37638 Migrate to connexion v3](#), [#37944 Reducing Kubernetes Pod Log](#)

Skills: Python, Pytest, Docker, Kubernetes, Helm Chart, project management.

Google Summer of Code 2023 (Opensource Internship) [@google/gcp_scanner](#)

- 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.
- The final report and list of contributions are available here on [GitHub](#).

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

Member & Contributor [@CNCF Keptn](#)

- Being an org member I actively contribute to new features, bug fixes, write unit tests in Golang, and participate in office hours.
- Implemented Datadog metric provider integration. [PR link: [#948](#)]
- Collaborate on the development and improvement of documentation materials.

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

CF-Stats @personal project | **150+stars** on [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, workflow automation, documentation, project management, Pytest, PR review.

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.

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

Sep 2023 - Present

Western University | Ontario, Canada

- 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 and Collaborate with the professor to ensure a cohesive and effective learning environment.

Skills: C programming, Linux, GoLang, Threading, Multiprocessing, Teaching