

Parth Shandilya

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EXPERIENCE

European Organization for Nuclear Research (CERN)

Geneva, Switzerland

Computing Engineer

Oct 2021 - Present

Working on CERN Analysis Preservation(CAP), service for researchers to preserve & document components of the physics analyses ensuring outputs are preserved, findable & accessible by collaborators in the future.

- **Platform:** Launching multiple features and impacted onboarding of new experiments at LHC.
 - CAP Client CLI: An interface to use the CAP APIs via the command line, impacting 10K+ researchers.
 - ADL Parser: A parser for ADL used in particle physics data analysis, on-boarding 3K+ researchers.
 - Code Quality: Implemented workflows to ensure PEP 8 standards improving the developer experience.
 - Search: Implemented script in Elasticsearch painless for customized string sorting for improved results.
- **DevOps:** Working on improving the CAP's infrastructure resilience, monitoring, and CI/CD workflows.
 - Health Check: Implemented in Python and Deployed on K8s, a status page for monitoring CAP APIs.
 - CI: Reduced E2E testing time by 50% using pre-built images.
 - Infrastructure: Migrated to OpenSearch from ElasticSearch 5 making sure to have zero downtime.

Software Engineer

Aug 2020 - September 2021

Worked on REANA, a reproducible analysis platform to run containerized data analysis pipelines on remote compute clouds helping 10k+ scientists and researchers worldwide.

- **Platform:** Pushed multiple improvements.
 - REANA Client CLI: An interface to use the REANA APIs via the command line, helping 10k+ researchers.
 - Message Queue: Made RabbitMQ queues durable for persistence of data avoiding the loss of data on pod failure.
 - Open data: Improved the open data search experience by introducing nested facets in the search.

INTERNSHIPS

European Organization for Nuclear Research (CERN)

Geneva, Switzerland

Software Engineering Intern

January 2020 - June 2020

- Worked on Indico, an event management tool used daily at CERN to manage 60K+ events, 200+ conference rooms and at the United Nations to handle more than 180K+ participants in worldwide conference.
- Implemented category-scoped groups & registration, abstract statistics visualization.

Perpule(Acquired by Amazon)

Bangalore, India

Software Engineering Intern

May 2019 - July 2019

- Worked on the innovative cloud-based POS (point of sale) that enables offline stores to manage better their inventory, checkout process, and overall customer experience impacting 30+ offline big multi-chain retail stores.
- Developed APIs for real-time syncing of store and cloud, allowing clients to seamlessly checkout analytics.

OPEN SOURCE

Personal Projects: Background(★509), pip-purge(★126), Loan Approval Prediction(★52), Ali Scraper(★37)

Contributions: Google Summer of Code, Weblate, StackStorm, OpenEBS, Rocket Software

Conference Speaker: PyCon Australia 2019, EuroPython 2019, FOSSASIA Summit 2018

TECHNICAL SKILLS

Languages: Python, Go, JavaScript, SQL, C, HTML5, CSS3

Frameworks: Flask, Django, React, Angular, EmberJS, ExpressJS, Semantic UI, PostgreSQL, D3.js

Developer Tools/Environment: Git, Docker, Kubernetes, Elasticsearch, SQLAlchemy, Redis, Kibana, Heroku, GCP

EDUCATION

Computer and Communication Engineering

Jaipur, India

The LNM Institute of Information Technology

August 2016 - July 2020

- Studied a wide range of subjects from Data structures and algorithms, Probability and Statistics, Design and analysis of algorithms, Economics for engineers, Computer networks, and Optimization.
- **Thesis Project:** Visual Net - A tool for visualizing websites