SAMYAK S SARNAYAK

Software Engineer

@ samyak201@gmail.com ⬡ Samyak2 🌐 samyaks.xyz in samyaks 📍 Bengaluru, India

EXPERIENCE

Software Engineer
Chaos Genius 🌐

📅 Sep. 2021 – Present   📍 Bengaluru, India

- Part of the early 10-person tech team.
- Working on the core API, DevOps and Open Source health.
- Managed several releases, revamped alerting system.

Summer Intern
Akamai Technologies 🌐

📅 May 2021 – July 2021   📍 Bengaluru, India

- Architected and set up a platform to query over existing data lakes (with multiple Petabytes of data).
- Benchmarked Trino to find optimal configuration and achieved 5x+ speedup in query times.

Co-instructor - Machine Learning with Julia
PESU IO 🌐

📅 Feb. 2021 – Mar. 2021   📍 Bengaluru, India

- Taught the course to 15+ first year students.

Intern
RuleZero 🌐

📅 July 2020 – May 2021   📍 Bengaluru, India

- Built a smart search tool to extract data from a legal database consisting of investors, cap table and related information.

Intern
Deeplogick 🌐

📅 Dec. 2019 - May 2020

- Trained and deployed object detection models based on SSD MobileNet V2.
- Optimised models to run on GPUs and Jetson Nano using TensorRT.
- Built a model trainer API through a scheduler.

ACHIEVEMENTS

🏆 **1st place at ISFCR CTF 1 & 2**
Capture-The-Flag hackathons conducted at PESU

PROJECTS

browser-history ⬡

📍 PES Open Source

- Open Source Python Package for retrieving any browser's history.
- Over 100 pull requests, 17,000 downloads on PyPI.
- Presented the project at PyCon India 2020 and 2021 DevSprints.

heiko ⬡

- A fault-tolerant lightweight scheduler to manage servers running on lightweight devices such as phones and Raspberry Pis.

par-a-graph ⬡

Parallelized Pagerank algorithm to achieve upto 4.2x speedup, using goroutines

gopy ⬡

A compiler for a subset of Go written in Python

spressolisp ⬡

A lisp interpreter written in Rust

michie ⬡

- A Rust attribute macro that adds memoization to a function.
- Co-authored in a mob programming fashion.

toipe ⬡

- A typing test terminal app written in Rust.
- Over 400 stars on GitHub.

skip-list ⬡

C++ implementation of skip list, achieves sub-microsecond logarithmic time operations

📅 July 2020

guntainer ⬡

🏆 **Grand Finale Winners at EY GDS Hackpions 2.0, 3.0 and 4.0**
National Level Hackathon

🏆 **1st place in the NuCypher track at ETHOdyssey**
Ethereum India Hackathon

🏆 **2nd Place at AI Challenge, Phase Shift 2019**
Recognising and classifying waste products

🏆 **3rd Place at Gov-TechThon 2020 by IEEE**
National level hackathon

🏅 **CNR Rao Merit Scholarship**
12th rank in 1st & 2nd semester CSE

🏅 **MRD Merit Scholarship**
3rd semester CSE

EDUCATION

B.Tech. in Computer Science and Engineering
PES University

📅 2018 – 2022   📍 Bengaluru, India

CGPA: 9.62/10.0.

Pre-University (Class 12)
Sri Kumaran Children's Home PU College

📅 2016 – 2018   📍 Bengaluru, India

Board: Department of Pre-University Education. Percentage in 2nd year PUC: 95.16%.

Class 10 - ICSE
VLS International School

📅 2014 - 2016   📍 Bengaluru, India

Board: Council for the Indian School Certificate Examinations (CISCE). Percentage in Class 10: 92.66%.

SKILLS

Python | Rust | Golang | C | C++ | Julia | SQL
TypeScript | JavaScript

Open Source | Git | 2100+ contributions in the past year
CI/CD

Linux | Docker | Distributed Systems

Parallelization | CUDA

ANNs | PyTorch

- A minimal rootless container runtime on Linux.

Abstractive Summarisation using Reformer

📅 Jan. - Jun. 2020   📍 PES University

- Built a decoder-only language model for Summarisation of 24k tokens (approx. 5k words) on single GPU.
- Applied Gap Sentence Generation for self-supervised pre-training.

Bengaluru's Greenest Areas

📅 May 2020   📍 PES University

- 5,38,000 satellite images. Found the percent of green using OpenCV.
- Custom multi-threaded map-reduce in python - processes 440,000 entries within 2s.

SVDNN.jl
Used Singular Value Decomposition to decrease training time of neural networks by 1.2x to 2.7x

NeuralNetwork.jl
Custom Neural Network with support for GPU (upto 3x speed up)

Other projects: https://github.com/Samyak2/

PUBLICATIONS

Analysis of Garbage Collection Patterns to Extend Microbenchmarks for Big Data Workloads

📅 July 2022   📍 PES University

- Presented at the WOSP-C workshop held at ICPE (International Conference on Performance Engineering) 2022.

Other research: https://samyaks.xyz/research/

LANGUAGES

English
Konkani
Hindi
Kannada

See the latest online version of this CV