

SAMYAK S SARNAYAK

Software Engineer

@ samyak201@gmail.com

Samyak2

samyak.me

samyaks

Bengaluru, India



EXPERIENCE

Software Engineer

Chaos Genius

Sep. 2021 – Oct. 2023

Bengaluru, India

- Part of the early 10-person tech team.
- Revamped alerting system in CG open source. Working on automated recommendations for SQL queries.
- Managed several releases of both open source and proprietary products.

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

Deepligick

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

Winner at langjam0003
Systems with JT

PROJECTS

browser-history

PES Open Source

- Open Source Python Package for retrieving any browser's history.
- Over 100 pull requests, 22,000 downloads on PyPI.
- Presented the project at PyCon India 2020 and 2021 DevSprints.

OtterSql

- An embeddable, in-memory SQL Interpreter designed to be used in tests for SeaORM.
- Written in Rust. A part of SeaQL's Summer of Code 2022.

gopy

- A compiler frontend 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.

likelang

- An experimental dynamically typed, function-first language.
- Made at the week-long langjam0002.


za-warudo lang

- A highly domain-specific language to procedurally generate 2D worlds.
- One of the winners at langjam0003.

toipe


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

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

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


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

 **CNR Rao Merit Scholarship**
1st, 2nd, 3rd & 4th semester CSE

 **MRD Merit Scholarship**
3rd, 4th, 5th, 6th & 7th 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 2000+ contributions in the past year

CI/CD

Linux Docker Distributed Systems

Parallelization CUDA

ANNs PyTorch

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.

skip-list 

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

guntainer 

- A minimal rootless container runtime on Linux.

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 GPU support (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://samyak.me/research/>

LANGUAGES

English
Konkani
Hindi
Kannada



See the latest online version of this CV

