## SAMYAK S SARNAYAK

#### **Software Engineer**

- @ samyak201@gmail.com
- Samyak2
- samyak.me
- in samyaks
- Bengaluru, India



### **EXPERIENCE**

## Software Engineer

- **Chaos Genius**
- 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 PESU IO

- Feb. 2021 Mar. 2021
- Bengaluru, India
- Taught the course to 15+ first year students.

#### Intern

#### RuleZero 🏶

- **J**uly 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 #

- iii 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**



### **PROJECTS**

#### browser-history (7)

- 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 heiko 🞧 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 skip-list 😱 **MRD Merit Scholarship** 3rd, 4th, 5th, 6th & 7th semester CSE **EDUCATION** B.Tech. in Computer Science and Engineering **PES University 2018 - 2022** Bengaluru, India

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

**2016 - 2018** 

CGPA: 9.62/10.0.

Bengaluru, India

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

#### Class 10 - ICSE

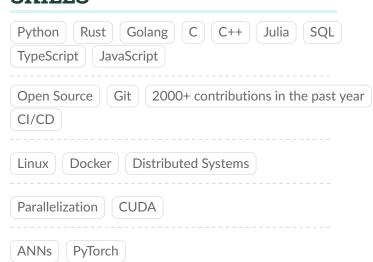
#### **VLS International School**

**2014 - 2016** 

Bengaluru, India

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

## SKILLS



• 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.

• 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

