SAMYAK S SARNAYAK

Software Engineer

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- Bengaluru, India



EXPERIENCE

Software Engineer

- Chaos Genius # Sep. 2021 - Present
- Bengaluru, India
- 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

- **i** 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.

Tech Core

PES Open Source **(*)**

- **Sep.** 2019 June 2021
- Bengaluru, India
- Helped organise Hacktoberfest 2019 events at PESU.
- Started the browser-history project.

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.

PROJECTS

browser-history (7)

- PES Open Source
- Open Source Python Package for retrieving any browser's
- 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 😱



ACHIEVEMENTS

T

1st place at ISFCR CTF 1 & 2

Capture-The-Flag hackathons conducted at PESU

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Grand Finale Winners at EY GDS Hackpions 2.0, 3.0 and 4.0

National Level Hackathon

7

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

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2nd Place at Al Challenge, Phase Shift 2019 Recognising and classifying waste products

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3rd Place at Gov-TechThon 2020 by IEEE

National level hackathon

Q

CNR Rao Merit Scholarship

12th rank in 1st & 2nd semester CSE

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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 College - Class 11, 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 9 and 10

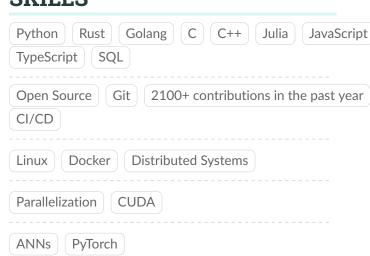
VLS International School

2014 - 2016

Bengaluru, India

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

SKILLS



A minimal rootless container runtime on Linux.

Abstractive Summarisation using Reformer

i 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)

Miscellaneous

- Recipe Viewer : A web app to aid in cooking. DSC PESU.
- Sentiment Analysis of Tweets : C program to get random tweets and perform basic sentiment analysis.
- Time Series Analysis of Amazon.in data : A data science project about collecting and analysing Amazon data.
- Intru Sense: Canary Tokens Based Mechanism To Notify Against Intruders.
- BlockChat : A blockchain based messaging application
- LightSabre : An Ethereum Dapp for luggage tracking using Blockchain.
- Seed Tracking system: Built on the Hyperledger Fabric blockchain. Submission for 3rd place at Gov-TechThon 2020 by IEEE.
- Park-O-Report : HackBout 2020 submission. React native mobile app, TF lite object detection. APIs in Flask for Number plate recognition and Geospatial indexing.

LANGUAGES

English Konkani Hindi Kannada

