ROHIT JAIN

Backend Software Engineer

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SKILLS

Languages: C++, C, Python, Scala
Frameworks: Pytorch, Tensorflow
Tech: Git, Linux, Github
Keywords: gRPCs, NFS, iSCSI

EDUCATION

BE Computer Science
BITS Pilani, India
Graduated: 2021
CGPA: 8.86/10

PUBLICATIONS

Filed US Patent (Nutanix)
Improved flushing techniques for temporary **write buffer storage** to persistent data storage

Published Python Package
Unified EBDM for common **distance matrix** for ordinal and nominal data.

ACHIEVEMENTS

Nutanix Hackathon 2023
Win attributed to the project's exceptional **innovation**, **direct business impact**, and **novel** approach.

RESPONSIBILITIES

Nutanix
Research Paper Reading Group Initiative | New Hire Mentor | Interview Hirings | Customer Oncalls | Code reviews

COURSEWORK

Object Oriented Programming, Data Structures & Algorithms, Computer Architecture, Operating Systems, Database Systems, Computer Networking, Data Mining, Image Processing, Neural Networks, Compiler Construction

WORK EXPERIENCE

RUBRIK — **Bangalore, India**
Software Engineer II — Apr 2024 - Present

- Engineering a **snappable** agnostic framework to support **backup, disaster recovery and archival** solutions for enterprise and open source databases bringing down development times to **1/4th**.
- Added support for **Postgres** backup and recovery on **Rubrik Security Cloud** potentially helping close open deals from fortune 500 companies.
- Tech Stack: **Scala, C++, Python, Git, Intellij, Arc, Github**

NUTANIX — **Bangalore, India**
Member of Technical Staff - 2 — Jun 2021 - Apr 2024

- Led the redesign of metadata store replacing **Cassandra** with **RocksDB** scaling **deep storage** to more than **500 nodes**.
- Optimized the **iSCSI** target digest computation process by introducing a shared locking mechanism resulting in a remarkable **decrease in login times** and scaling simultaneous logins from **128 disks to 2000+** targets.
- Pioneered the implementation of a robust network interface hosting mechanism on multiple nodes, providing **multi-path IO** services to clients, dramatically reducing iSCSI reconnection latencies from **10s to under 1s**.
- Tech Stack: **C++, Python, Git, Gerrit, Distributed Systems**

NUTANIX — **Remote, India**
Intern, Member of Technical Staff — Aug 2020 - Dec 2020

- Developed an error injection framework for failing **gRPC requests** reducing simulation **testing times by 80%** for degraded **distributed cluster**.
- Extended the framework for detection of slow nodes with very few false positives and latency **overheads of less than 100ms**.
- Tech Stack: **C++, Git, Gerrit, gRPCs, Microservices**

SAMSUNG R&D — **Remote, India**
Software Development Intern — May 2020 - July 2020

- Created an **android application** that learns the user color-tone preferences via on-device learning approach on as small as **4 GB RAM** phone.
- Trained a **GAN-based Model** for user behavior learning in a **few shot meta-learning** scenario, achieving user satisfaction **score of 80+**.
- Tech Stack: **Java, Android Studio, Python, Pytorch**

CSIR-IGIB — **New Delhi, India**
Research Intern — May 2019 - July 2019

- Designed an **entropy** based model for unifying categorical data to perform **clustering** and other data modelling tasks for 10000+ questionnare data.
- Used divergence model for **classification** of healthy individuals into different Prakriti classes and achieved an **accuracy rate of over 90%**.
- Tech Stack: **Python, pandas, numpy**

PROJECTS

HUMAN DETECTION AND SEGMENTATION ☐
Object Detection | Deep Learning

Conducted a comprehensive **comparative study** of cutting-edge computer vision algorithms for human detection and segmentation; analyzed COCO dataset for images and TownCentre and VIRAT datasets for videos, **improving quality metrics by 25**%

ERPLAG COMPILER ☐
Compiler Design

Built a compiler for a toy language ERPLAG, in **C language**. Implemented the **compiler design** in four phases: lexical analysis, syntax analysis, semantic checks and code generation.