Ankur Singh

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🐦 ankurs13 in /in/ankursingh13 ○ rush-skills

Summary

A polyglot entrepreneurial developer with a hacker state of mind. Managing large scale distributed systems, building modern apps and automating manual processes. Always hustling to architect and build amazing products.

Education

IIIT Delhi   Aug. 2013 to Jul. 2017
B. Tech. CSE
Gold Medalist - Best BTech Project (Entrepreneurship)
Admin of Byld - SDE Club
SysAdmin TA for Data Center and R&D infrastructure
TA - Intro To Programming '14 & '15

Skills

Programming Languages: Python, Ruby, Java, Bash, JavaScript, Golang
Development: Ruby on Rails, Flask, Redis, PostgreSQL, MongoDB, Spring, ElasticSearch, Graphite, Puppet
Tools and Technologies: Linux, Docker, AWS, Git, Kubernetes, GCP, StackStorm, Terraform, Rundeck, GitOps
Languages: English, Hindi
General Skills: Public Speaking, Communication, Leadership, Networking, Analytics

Volunteering

StackStorm   Nov. 2021 to Present
Open-source maintainer   Remote
Contributor and Maintainer for the StackStorm open-source project, also serving on the Technical Steering Committee.

Helping Hands @IIITD   May 2016 to Jun. 2017
Volunteer/Teacher   Delhi, India
A student initiative to help children of small schools get access to better education and learning. As a part of the initiative, we went to various public schools for low-income kids and gave extra classes. I also volunteered for a summer camp where underprivileged students from government schools were taught different subjects and life skills.

Employment

European Organization for Nuclear Research (CERN)   Sep. 2020 to Feb. 2023
Computing Fellow   Geneva, Switzerland
Worked in the Batch team, responsible for the distributed grid and batch systems of CERN, spanning over **300k cores**.

- Primary Project: **DevOps Automation** with **StackStorm** to enable **auto-remediation** workflows for our **HTCondor** and **Slurm HPC** clusters, laying the foundation for a **self-healing architecture**. Automation for handling broken nodes (no-contact alarms) in the system (earlier dealt with 2nd line support) is now handled first by the remediation workflows and has saved **1000s of man-hours**. This work has been **presented at the HEPiX conference** in Umeå, Sweden.
- Also researched **load-shaping** jobs on compute clusters to **limit storage I/O** of rouge jobs and keep cluster health in check. Automation to detect users with bad I/O patterns and **auto-throttling** them.
- Attended Thematic **CERN School of Computing** (**tCSC**) in the **Security of research computing infrastructures** in Split, Croatia.
- Other roles include being a **CERN WhiteHat** (and extended security/**CERT** team), a **WIT mentor**, and an **official guide**

Tower Research Capital   Jun. 2018 to Jul. 2019
Software Engineer, HPC   Gurgaon, India
India Lead for the High-Performance Computing (HPC) team

- Administrating the hybrid HTCondor clusters spanning **50k cores** across on-prem and cloud, **petabyte-scale** storage systems (GPFS, Isilon, Ceph), and graphite ingesting **60M metrics/min** for in-depth system insights
- Managing the infrastructure and clients for large-scale distributed data simulations and stock market research
- Speeding up the research cycle by finding inefficiencies using **50M events/day** in ELK for workload analysis

Myntra (Flipkart)   Jul. 2017 to Jun. 2018
Software Engineer, BI/Analytics   Bengaluru, India
Core developer of products for analytics and business insights at India's largest fashion e-commerce

- **Live metrics** and **key dashboards** that are used by **CXOs** were made in our dashboarding tool that allowed analysts to access, visualize and report across all internal data, which drove key decisions in a data-driven company
- Rewriting the core engine to reduce the core process from **days to minutes** for a targeted marketing tool that **segmented** the **100M** customers on **200 parameters**

Entrepreneurial Experience

Mouve   Jul. 2019 to Jan. 2020
Architect   Noida, India
Animated story maker for Instagram powered by a Unity based rendering engine with over **100k** play store downloads

Energygrade   Nov. 2016 to Jun. 2017
CTO   Delhi, India
Making **rooftop solar power** accessible using technology, experimenting with energy forecasting and panel health monitoring tools, and installing over **1MW** of solar panels in India

Backpack Labs   Dec. 2013 to Dec. 2014, Dec. 2013 to Dec. 2014
Developer   Delhi, India
Building the next-generation learning management system (LMS) offering the best user experience to 1000s of instructors and 50k+ students