

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, HTCondor

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 **250k cores**.

- Primary Project: **DevOps Automation** with **StackStorm** to enable **auto-remediation** workflows for our **HTCondor** 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**, 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

Pixotronics Nov. 2023 to Present
Consultant Bangalore, India

Pixotronics is a startup working on real-time photo-realistic 3D graphic rendering products, powered by their open-source WebGL framework. As a part of the small team, I have been working on the iJewel suite of products, which enable jewelry store owners to add ultra-high quality rendering capabilities to their websites.

Mouve Jul. 2019 to Jan. 2020
Developer 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