

# Akash Murthy

LEAD DEVOPS ENGINEER · ELECTRONICS EXPERT

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"I like to build stuff."

## Summary

Akash Murthy has a Bachelor's Degree in **Computer Science** from PES University, one of the premier institutes in Bangalore, with distinction. He has more than 3 years of experience working with IT products and services organizations. He is proficient in Cloud Computing, Software Defined Networks, DevOps tools, Security practices, Containerization technologies, and Linux internals. He has worked with VMware's virtualization stack including NSX, vSphere, and Tanzu Kubernetes Grid as well as Nvidia's CUDA libraries, Gitlab operations, **open-source** tools, and databases.

He has mentored, judged, and been awarded for being part of several **hackathons**, and he has applied for a **patent** related to depth mapping. He is a recipient of the Rasphtrapati award, given by the President of India for his services as a Scout. He is self-motivated, runs websites, and automation services on servers at his home. A **home lab** where he tries new DevOps practices and open-source software. He is also academically inclined, having **published** a paper with the Springer Journal on measuring and forecasting electrical usage metrics at homes and industrial settings.

Business Skills: Automation Expertise, Service Management and **Governance**, Adherence to SLAs, MIS **reporting** on KRIs & KPIs, Vendor Evaluation, Negotiations and Management, Planning, Analytics, Metrics, and Measurement.

Professional Skills: Strong verbal and written communication deftness; Leadership, **Adaptability** and Continuous Learning, Ability to manage multiple projects and personalities.

## Work Experience

### MYn App - NxtGen Datacenter and Cloud Technologies | Multi-verse Technologies Pvt. Ltd.

Bengaluru, India

#### LEAD DEVOPS ENGINEER

Jun. 2023 - Present

- Proven ability to lead and mentor teams, collaborate with stakeholders, and **troubleshoot** technical issues.
- Technical **product owner** of MYmail & Speedcloud, developing product line strategies and handling client engagements.
- Provide technical leadership and guidance through coaching and mentoring, with IT **disaster recovery** and business continuity planning.
- Automate manual tasks for code and data development, and deployment through integration of IT infrastructure across different technologies.
- Design, implement, and manage **scalable** and secure infrastructures with **ITSM** practices based on ITIL.
- Train departments on reusable tools and patterns, **lead** teams to foster vendor relations, **building** high performance teams and nurturing **talent**.

#### DEVOPS ENGINEER

Jan. 2022 - Jun. 2023

- Extensive understanding of open-source technologies and stacks, network and infrastructure architecture.
- **Saved \$15,600** yearly by migrating entire team from Atlassian based products to self hosted alternatives like Gitlab, Trilium and FileRun.
- Optimised Cloudflare enterprise account spends **saving \$44,700** annually, and supported team with **Hashicorp** products like Terraform & Vault.
- Configured FFmpeg environment with **Nvidia** CUDA & NVENC support for h/w transcoding, **saving \$9000** monthly against AWS Elastic Transcoder.
- Adept at setting up **webservers** and load balancers like Nginx, HA Proxy and VMware NSX, and **Fortinet** products including SIEM, SORE, and Mail.
- Created automation scripts using Ansible, **CI/CD** pipelines on Gitlab with management of **JavaScript** (Node.js) projects clustered using **PM2**.
- Aided with efficient use of infrastructure, encouraged the use of **DevOps practices** among developers, and setup monitoring to support alerts.
- Experience with **Docker**, Docker Swarm, **Kubernetes**, **S3** compatible object stores like Ceph, Observability tools like **Grafana**, and Prometheus.
- Familiar with public and private cloud providers like **AWS**, **GCP**, **Azure**, **VMware**, **OpenSUSE**, **Redhat** & **OpenStack**.

#### SOFTWARE DEVELOPMENT ENGINEER

Jul. 2022 - Dec. 2022

- Made advancements in ride hailing as well as onboarding activities at MYn.
- Contributions to projects across **Python** and Node.js **backend** microservices as well as familiarity with **frontend** languages.
- In-depth understanding of the web development process, worked with databases like **MariaDB / MySQL**, **PostgreSQL**, **Redis** and **MongoDB**.

#### DEVOPS ENGINEER INTERN

May. 2021 - Dec. 2021

- Worked with Client - MYn (Multi-verse Technologies Pvt. Ltd.) on bringing several services online.
- Enabled the use of an open source IAM and SSO solution known as **Keycloak** for production with **Java**.
- Worked in a team of two to develop and deploy a Linux-based MySQL Galera cluster.
- Responsible for **stress-testing Linux** based systems primarily through the CLI with tools like **ApacheBench** and inbuilt Unix tools.
- Deployed and configured a HA Proxy cluster with **VRRP** (keepalived). This system managed all **API traffic** for NxtGen's cloud infrastructure.

### Plicly

Bengaluru, India

#### LEAD HARDWARE ENGINEER

Apr. 2020 - Jan. 2022

- Hardware prototyping and design for posture correction systems.
- Employing **time of flight** ranging and depth mapping, **patent** applied with PCT granted.

### PES University | PESU I/O

Bengaluru, India

#### SUBJECT MATTER EXPERT

Jan. 2020 - May. 2020

- Formulated course material for the course **Electronics** Prototyping.
- **Mentored** a class of 40 students, successfully headed all group discussions with relevant assignments and projects.

## Honors & Awards

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2020	<b>Winner</b> , Kalpana Hackathon	Bengaluru, India
2020	<b>Winner</b> , SharkTank E-Summit	Bengaluru, India
2020	<b>2nd Place</b> , inGenius Hackathon	Bengaluru, India
2019	<b>Finalist</b> , Kalpana Hackathon	Bengaluru, India
2019	<b>Finalist</b> , Kludge Make-a-thon	Bengaluru, India
2016	<b>Winner</b> , HackerEarth Codefest	Bengaluru, India
2015	<b>Recognition</b> , Bharat Scouts & Guides - Rashtrapati Award by the President of India	India
2010	<b>Diploma</b> , (PRO) SHO-Dan SHITO-RYU KARATE-DO	Bengaluru, India

## Presentation

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### 3rd INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES IN DATA MINING AND INFORMATION SECURITY (IEMIS 2022)

West Bengal, India

PRESENTER FOR <ENERGY MONITORING WITH CONSUMPTION TREND ANALYSIS AND POWER SIGNATURE INTERPRETATION>

Feb. 2022

- Introduced the method of collecting electrical usage metrics and pushing data points to a time series database.
- Introduced how to detect appliances in power wave forms with linear regression.
- Introduced forecasting data with SARIMA, SARIMAX and TBATS models.

### PESU I/O 2019

Bengaluru, India

PRESENTER FOR <MACHINE INTELLIGENCE AND DATA SCIENCE: PROGRAMMING WITH R>

Dec. 2019

- Introduced Exploratory Data Analysis and Hypothesis Testing with R.

## Writing

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### Hi! I'm Akash!

Self Hosted Page

FOUNDER & WRITER

Aug. 2022 - PRESENT

- Thoughts, stories and ideas on technology I find cool!

### Energy Monitoring with Consumption Trend Analysis and Power Signature Interpretation

Springer

CO-WRITER

Sep. 2022

- Part of Advances in Intelligent Systems and Computing book series (AISC, volume 1348)
- Indexed with Scopus Database and published with Springer Link Journal.
- Presented at IEMIS 2022.

## Program Committees

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2021	<b>Mentor &amp; Judge</b> , inGenius Hackathon	Bengaluru, India
2020	<b>Technical Lead</b> , Incubator	Bengaluru, India

## Education

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### PES University

Bengaluru, India

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

Aug. 2018 - May. 2022

- Awarded MRD Scholarship and Prof. CNR Rao Scholarship for academic performance. Graduated with a CGPA of 8.86 on a 10 point scale.
- Advanced specialisation in Machine Intelligence & Data Science.

### Ekya Schools

Bengaluru, India

GRADE 12 | SENIOR YEAR

Jun. 2016 - Mar. 2018

- Achieved a final score of 89%.

## Extracurricular Activity

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### Vegavath Racing Division

Bengaluru, India

TECHNICAL LEAD (TRANSMISSION & ELECTRONICS) / DRIVER

Nov. 2018 - Aug. 2022

- The official formula racing team of PES University Electronic City Campus.
- Focused on designing, fabrication and testing of race cars.
- Represented the college at SAE National and International Automotive competitions, and other automotive competitions.