Akhil Sundaram

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Education

University of Illinois Urbana-Champaign Champaign, IL
Masters in Computer Science *GPA: 3.89/4 - Jan. 2024 – May 2025*
Relevant Coursework: Distributed Systems, Computer Architecture, Advanced Storage and Memory systems, Real-time Systems, Computer Security, Game Development

PES University Bangalore, India
Bachelor in Technology, Computer Science and Engineering *GPA: 8.76/10 - Aug. 2015 – May 2019*
Relevant Coursework: Operating Systems, Big Data, Unix Systems Programming, Data Structures and Algorithms

Experience

Senior Devops Engineer July 2019 – Nov 2023
Logmein / GoTo *Bengaluru, India*

- Created a patch management tool for Linux environments across on-premise and cloud infrastructures, enabling diverse patching strategies and reducing system downtime by 30%.
- Architected and deployed cloud-native applications across AWS, OpenStack, and Oracle Cloud, including designing cross-cloud solutions for over 20 different services for GotoMeeting's backend application.
- Engineered and maintained customized Ansible modules for DNS automation, real-time monitoring, and cloud migration, eliminating configuration errors (99.99%) and reducing manual intervention.
- Deployed a cloud security monitoring tool across multiple AWS accounts and Oracle Cloud environments, incorporating automated compliance scans and real-time alerting. This implementation reduced compliance violations and increased threat detection efficiency.
- Designed automated disaster recovery and cross-cloud migration frameworks using Ansible and Terraform, ensuring seamless data transfer and zero downtime during cloud transitions.

Projects

Distributed Log Querier | *Golang, Linux* Aug 2024 – Sept 2024

- Implemented a fault tolerant program that parses a distributed log file using sockets and go routines.
- Generated distributed logs of known and random patterns of upto 300,000 lines. Built unit tests to verify querier.

Timing experiment with Memory Systems | *C,Cache,Memory* Jan 2024 – May 2024

- Developed a program to get the properties of the last-level cache of a system and also the latency of the memory.
- It determines the line size, capacity, and associativity of the last level cache by timing the latency of memory hits/misses. Written in C.

Identity System using Blockchains | *Python, NodeJS, Blockchain, Multichain* Jan 2019 – May 2019

- Designed a decentralized,secure platform utilizing blockchains to create an Identity datastore for over 1000+ users.
- Addressed data oversharing through identity-forms that validate information through a consensus mechanism reducing validation time by 40% and improving privacy under possible data breaches.
- Built a platform with a NodeJS frontend that interacts with a Multichain peer-to-peer network, and a Flask backend to manage blockchain transactions and identity verification processes.

Cloud Agnostic Kubernetes | *Ansible, Kubernetes, AWS, Linux* Jan 2019 – May 2019

- Developed a Kubernetes deployment tool using Ansible and Python, capable of automating the setup of Kubernetes clusters on Linux-based systems saving over 3 hours per deployment.
- Devised a cross-platform solution that ensures compatibility with any cloud service provider; achieved successful implementation on AWS and bare-metal Linux.
- Generated robust scripts for real-time monitoring and autoscaling of Kubernetes nodes improving uptime by 50%.

Technical Skills

Languages: Python, Golang, C
Frameworks: Ansible, Terraform, Flask
Developer Tools: CUDA, Git, Docker
Platforms: Kubernetes, AWS, Openstack, OCI