Sashwat K

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Cloud Engineer — Backend Engineer — Confidential Computing

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PROFILE

Results-driven systems engineer with 5+ years of experience in cloud infrastructure, DevOps automation, and confidential computing. Proven expertise in deploying scalable systems in the IBM Cloud, building Terraform modules, and implementing secure virtualization environments. Recognized multiple times for technical excellence and open-source contributions.

EXPERIENCE

IBM ISDL — Hybrid
Senior Engineer (Full Time) — *Jul 2022 - Present*

- **LinuxONE Baremetal on VPC — IBM Cloud**:
  - Developed and maintained SLES and RHEL OS for LinuxONE Baremetal on VPC (Virtual Private Cloud) for IBM Cloud.
  - Implemented zVSI (KVM on Z) and LPAR supported images with automation to reduce building time by 80%.
  - Developed automation scripts for maintaining LinuxONE Baremetal.
  - Enabled SSC (Secure Service Container) functionality for enhanced confidentiality on Baremetal infrastructure.
- **Hyper Protect Virtual Server (HPVS) — Confidential Computing**:
  - Designed and maintained the Terraform provider for HPVS, reducing manual deployment overhead for customers.
  - Added features such as static IP assignment, contract expiration enforcement, and structured log tagging through systemd services and bootloader enhancements.
  - Automated release operations, reducing DevOps overhead by 70%.
  - Proactively resolved customer complaints, improving satisfaction and adoption.

AMD Inc. — Hybrid
Silicon Design Engineer (Full Time) — *Feb 2022 - Jul 2022*

- **AMD - Xilinx Integration**: Help update infrastructure to help bring synergy between AMD and Xilinx systems Revision Control System, License Servers etc.
- **Programming**: Developed and maintained scripts for maintaining ICManage servers (users, workspaces etc), FlexLM license files, benchmarking new servers
- **Collaboration**: Delegate with Silicon Engineering teams and IT to complete projects.

Xilinx Inc. (Acquired by AMD Inc.) — Hybrid
CAD Engineer (Full Time) — *Jul 2021 - Feb 2022*

- **Management**: Implement policies for LSF queues and Storage.
- **Programming**: Develop and maintain ICManage Library creation.
- **Documentation**: Create, update and document processes using Jira and Confluence.

Xilinx Inc. (Acquired by AMD Inc.) — Hybrid
CAD Infrastructure DevOps Engineer (Contractual) — *Jun 2020 - Jul 2021*

- **Programming**: Developed and maintained script to maintain server netgroup files of hosts in LSF clusters.
- **Maintenance**: Maintain ICManage GDP, LSF application profiles, LSF License Scheduler and EDA tools.

EDUCATION

College of Engineering Trivandrum — Thiruvananthapuram, India
MCA; GPA: 7.0 — *Aug 2017 – Apr 2020*

Christ Nagar College — Thiruvananthapuram, India
BCA; GPA: 7.2 — *Jun 2014 – May 2017*

Kendriya Vidyalaya AFS Akkulam — Thiruvananthapuram, India
High School Computer Science — *Apr 2012 – Mar 2014*

SKILLS SUMMARY

- **Languages**: Go, Python, Bash, C, Data Structures and Algorithms
- **DevOps & Tools**: Terraform, Docker, Git, Jenkins
- **Infra & Platforms**: Linux, Systemd, IBM Cloud, LPAR, zVSI, z/VM
- **Concepts**: Virtualization, Confidential Computing, Infrastructure as Code (IaC)

Projects

- **Portfolio Website**: A portfolio website anybody can use along with containerization and Terraform to generate temporary SSL certificates and host on AWS. Available at GitHub - sashuu69/portfolio-website.
- **Fingerprint-based Exam Authentication System**: Biometric verification system to prevent impersonation in exams. Arduino-based handheld device for authenticating students and invigilators.
- **IoT Water Level Indicator**: Automated tank and garden watering system using moisture sensors and NodeMCU. Available at GitHub - sashuu69/iot-water-level-indicator.
- **ATmega328P Production-Ready Board**: Compact Arduino UNO-compatible board (SMD and DIP) with Eagle design files. Available at GitHub - sashuu69/sph-mc-one.

Honors and Awards

- Significant Contributor, IBM Technical Collaboration Achievement Program (TCAP) 2025 - Open source contributions towards terraform provider for hyper protect virtual servers

- IBM Quarterly Cash Award Program (QCAP) Q1 2025 - For significant contributions towards Hyper Protect Virtual Servers (HPVS) and Z Virtual Server Instances (zVSI)

- IBM ISDL Team Award March 2023 - For contributions towards LinuxOne Baremetal on IBM Cloud VPC

- IBM ISDL SDS Star Of The Month (Oct 2022 and Jan 2024) - For contributions towards LinuxOne Baremetal for VPC and Hyper Protect Virtual Servers

- Star Performer, All India MCA Meet 2019 (NIT Trichy)

Volunteer Experience

- **Internet of Things Lab, College of Engineering Trivandrum**   Thiruvananthapuram, India
  Conducted workshops on Arduino, Raspberry Pi, BeagleBone, Python   *Oct 2018 – Apr 2020*
- **RASA Hams - Ham Radio Community**   Thiruvananthapuram, India
  Collaborated with local amateur radio enthusiasts for learning and experimentation   *Jan 2018 – Present*