

MUHAMMAD IJAZ K

Silicon CAD Infrastructure & DevOps Engineer

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PROFESSIONAL SUMMARY

Computer-Aided Design (CAD) infrastructure, data and DevOps engineer with an MCA and 4+ years at AMD supporting silicon design teams. Administer version control and design-data infrastructure (Git, Perforce, Methodics ICM), own the license usage monitoring system, build Python data and web tooling, and run monitoring, alerting and scheduled automation. Use AI coding assistants (Claude Code, MCP servers) daily, with clear guardrails on what AI may change.

TECHNICAL SKILLS

Programming & Automation: Python (FastAPI), SQL, Bash, cron scheduling, GitHub Actions, React / Vite, Docker, Linux (RHEL)

Version Control & CAD Infrastructure: Git, Perforce (Helix Core), Methodics ICM, IBM Spectrum LSF (Load Sharing Facility), FlexLM Licensing, Storage, EDA Tool Installation, Server Configuration, Third-Party IP Installation (Synopsys, Cadence, Arm, TSMC)

Data & Monitoring: Dremio, dbt, Design Engineering Data Catalog (DEDC), Power BI, Nagios, Prometheus, Grafana, Atlassian (Confluence, Jira), Jira Dashboards, Jira Automation

AI-Assisted Engineering: Claude Code, Codex, Copilot, MCP servers, CLI tool integration, AI-driven Jira ticket management, reusable skills (creation and maintenance), plugins, persistent memory

Access Control & Storage: LDAP (Lightweight Directory Access Protocol) Binding, IAM/ACL (Identity & Access Management / Access Control List) Permission Models, NAS/NFS Quotas, CVE (Common Vulnerabilities and Exposures) Assessment

PROFESSIONAL EXPERIENCE

AMD, Hyderabad, India

Infrastructure DevOps Engineer (CAD) | Sep 2022 – Present

- Administer 20+ Methodics ICM servers, Perforce servers, Git repositories, LDAP bindings and permissions for silicon design teams across San Jose, Atlanta and Ireland.
- Resolve access and IP-release permission issues.
- Install and configure 40+ Electronic Design Automation (EDA) tools and third-party IP packages (Synopsys, Cadence, Arm, TSMC) on design servers.
- Own the license usage monitoring system (monitors 100+ EDA licenses), including ongoing maintenance.
- Flag licenses checked out for long or repeatedly by the same user and notify them to kill idle ones, cutting license cost.
- Manage LSF workloads, FlexLM licensing and NAS/NFS quotas for EDA compute.
- Set up Nagios disk-full alerting on 3 ICM servers provisioned with the IT team.
- Built 60+ cron-scheduled jobs that run monitoring and maintenance scripts at defined intervals.
- Built Dremio query-monitoring dashboards (used across AMD) that give engineers instant, consistent answers on query handling and data admins quick insight into which queries and users are on Dremio and how.
- Built Jira ticket-tracking dashboards (used by 10–15 teams) that speed up case handling and give users faster resolutions, improving silicon engineers' overall productivity.
- Maintain Dremio and dbt views for chip design and verification metrics (timing, power, electromigration and IR drop (EMIR)); handle data-quality cleanup requests.
- Operate Prometheus and Grafana dashboards; investigate stale data and service outages to identify root causes.
- Built a self-service web app (FastAPI, React/Vite) that lets engineers view their own data-warehouse query performance.
- Assessed dependency CVEs and hosting readiness for the web app, including secure secrets handling.
- Plan downtime windows for RHEL patching and database migrations with minimal impact on design teams.
- Write documentation and onboard new teammates.
- Use Claude Code daily for research, data exploration, development and debugging, connected to internal tools via MCP servers and CLIs.
- Set guardrails such as no AI-run write queries and tracked CVEs and risks.

Local Self Government Department (LSGD), Kerala, India

Project Assistant / Project Coordinator | Oct 2021 – Aug 2022

- Managed on-premise servers and performed network maintenance, troubleshooting connectivity and hardware issues for the office.
- Managed digital reporting for Central and State Government grants, disbursements and project milestones.
- Coordinated IT operations and executive reporting under the direct supervision of the Secretary of LSGD.
- Handled routine government-office work: official correspondence and reports, file and records management, data entry, document tracking and coordination with other departments.

Hi Tech Arts and Science College Vattoli, Kozhikode, India

Assistant Professor in Computer Science | Jun 2020 – Oct 2021

- Taught undergraduate courses in core computer science, systems programming and database structures.

EDUCATION

College of Engineering, Trivandrum (CET), Kerala, India | 2018 – 2020

Master of Computer Applications (MCA)

Hi Tech Arts and Science College Vattoli, Kerala, India | 2015 – 2018

B.Sc. Computer Science