

KUMAR DAHAL

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## CAREER SUMMARY

### AI/ML / Multi-Cloud Solution / Cybersecurity / DevOps Automation Architect

**Highly motivated, results-oriented, and innovative with complex problem-solver** with analytical and driven mindset. Dedicated to achieving demanding development objectives according to tight schedules while producing impeccable code. **Expert in AI/ML / Multi-Cloud Solution / Cybersecurity / DevOps Automation Architecture with 20 years** of successful versatile hands-on enterprise experiences in software architecture. **Recognized consistently for performance excellence** and contributions to success in multinational business demands. **Experience** in researching, architecting end-to-end systems, multi-cloud **data migration**, data **governance and analytics**, **enforcing cyber security** and protocols. **Galvanized and trained engineers and developers** on challenges that involves in adopting cloud native or cloud distributed system architecture. **Shrewd communicator and negotiator**, with proven ability to gain cooperation and build consensus among diverse groups with conflicting business objectives to successfully achieve win/win outcomes. Strong experience architecting building and managing large, highly available enterprise public or private clouds.

- ✦ **Architect, designed, deployed, automation and managed AWS/GCP/AZURE** cloud-based production system, to ensure the availability, performance, scalability, and security of production systems.\
- ✦ **Research, Architect, Designed, developed, and maintained** metadata driven data pipeline automation framework(s) for batch, event, and streaming data in cloud native environment
- ✦ **Leverage open-source tools for cloud-native** application delivered and built entire network system infrastructure for seamless deployment, execution, and validation.
- ✦ **Implemented multi-cloud architect to automate and orchestra various applications** along with the cloud computing reference model, and cloud governance life cycle for building cloudOps frameworks.
- ✦ **Migrated entire data from monolith to stable microservices architecture** with robust, scalable and containerization deployment and orchestration.
- ✦ **Utilized some of the tools and platform provided by Cloud Native Computing Foundation (CNCF)** for management and orchestration, networking and runtime, application observability, and analysis and security.
- ✦ **Developed and maintained information security program strategic** and tactical goals and objectives and program outreach/communication plans.
- ✦ **Displays strong thought leadership** in pursuit of modern architecture principals and technology modernization
- ✦ **Hands-on operating and managing services** in a public cloud environment: AWS, Azure, or GCP
- ✦ **Hands-on deploying and managing IT infrastructure** and on-site server at each venue

## TECHNICAL EXPERTISE & CERTIFICATES

[Skillsoft Learning: Certificates](#)

[LinkedIn Learning: Certificates](#)

**Certificates:** AI Apprentice, AI Developer, AI Practitioner, AI Architect

**Certificates:** ML Programmer, DL Programmer, ML Engineer, ML Architect

**Certificates:** DevOps Engineer, Cloud Engineer, CloudOps Engineer, Muti-Cloud Architect

**Cyber Security:** CCSP, CISSP, SY0-601: CompTIA Security+, DevSecOps, HashiCorp Vault.

**Tools:** Git, Jenkins, Docker Architecture, Kubernetes Architecture, HashiCorp Tools, Angular, Elastic Stack, SoarQube, Node.js, React, .Net Core, Ansible, Puppet, Chef, Red Hat, Nagios, Selenium, Google Cloud, Jupiter notebook, Spider.

**Methodology:** Agile, Kanban, Scrum, SAFe Team, SAFe DevOps,

**Language:** HTML, JSON, XML, CSS, JavaScript, PHP, JAVA, C++ and Python.

**Multi-Cloud:**

AWS: AWS DevOps Engineer (Professional) Certification, Master the AWS Well-Architected.

GCP: Google Cloud Architect - Cloud Design, Network Components, Web Applications & Name Resolution.

AZURE: Azure Architect Technologies Certification, Deploy and Manage Virtual Machines, Deploy and Manage Virtual Machines, Configure and Manage Virtual Networks, Manage Identities.

**Network Infrastructure:** NFV, SDN, SD-WAN, DPDK, MPLS, VOIP, TCP/IP, DNS, DHCP, VPN, IAS, DOCSIS. Network Architecture and design: Active Directory, Group policy, Terminal Services, Routing and Remote Access, wiring and cable terminations, Hardware based CPE (Intel and ARM).

## PROFESSIONAL EXPERIENCE

**ASRC Federal**, Fort Collins, CO

**April-2021 – Present**

*Delivers successful mission and elevates performance for federal civilian, defense, and intelligence agencies.*

**Multi-Cloud Solution / DevOps Automation Engineer/Architect**

Architect designed sustainable CI/CD automation for build, test, and deployment of enterprise web applications. Supported, collaborated, and help others to understand the CI/CD automation functions, pipeline, and the principal practices. Defined and documented cloud solution architecture(s) including technical designs and diagrams. Designed and implemented cloud infrastructure solutions for distributed systems and applications. Preplanned cloud migration and cloud-native solutions. Automated complex operational tasks using common scripting utilities. Lead in the designed, deployment, and operations of Cloud Platforms – including AWS/GCP and Azure. Monitored of service health, management of service requests, and change management within the infrastructure. Research and implement new Cloud tools to improve efficiency, performance, and cost-effectiveness limit downtime in all environments.

- ***Architect CI/CD pipeline*** automation deployments with AWS/Azure/GCP for apps.
- ***Created architecture and strategic*** blueprints and ensured the development teams comply planning, designing, and executing complex company level solution configuration.
- ***Deployed and managed applications*** running on a mix of Kubernetes, in multi-Cloud and introduced optimizations; resulted in a \$15k savings per month.
- ***Defined and documented cloud solution architecture(s)*** including technical designs and diagrams implementation cloud infrastructure solutions for distributed systems and application.
- ***Pre-planned cloud migration and cloud-native solutions.*** Automated complex operational tasks using common scripting and specific tools utilities.
- ***Analyzed, reversed, and finalized*** the specifications for tools installation, build, and deployment automation for 40+ services
- ***Transformed market data*** into actionable strategies for continual process change; resulting in an efficiency increase of 65%
- ***Architect docker containers and Kubernetes*** built microservices architect for reliability and resilience.

**Hotel Engine**, Denver, CO

**Dec-2018 – Mar-2020**

*Provides hotel-booking platform for enterprise clientele designed for business travel.*

### **DevOps Automation Engineer – Enterprise Cloud**

Responsible for maximizing the value through supporting, automating, and optimizing mission critical deployments in AWS, Azure and GCP, leveraging configuration management, CI/CD, and DevOps processes. Created and maintain fully automated CI/CD pipelines for code deployment using Tomcat Server and PowerShell. Actively manage, improve, and monitor cloud infrastructure on AWS, EC2, S3, and RDS, including backups, patches, and scaling. Built and deployed Docker containers to break up monolithic app into microservices, improving developer workflow, increasing scalability, and optimizing speed. Implemented Kubernetes cluster AWS (EKS) to manage and orchestrated containers for scalability.

- ***Automated finance system cut business costs by 35%***, increased productivity rates by 85%, and eliminated billing error 95%.
- ***Provide oversight to data architecture*** solution implementation, with ability to guide a team of data engineers on projects and groom resources.
- ***Developed and deployed hotel reservation*** platform, API integration, and UX/UI design for enterprise.
- ***Effectively negotiated sprint goal with the team by slashing 20% of the time*** in a single quarter and was able to coordinate 95% of products roadmap completion.
- ***Utilized Python*** for inspecting, cleansing, transforming, and modeling data.
- ***Developed new API*** integration application with JSON for communicating with centralized hotel API.
- ***Utilized inventory management tool*** such as Ansible and NetBox for provisioning, configuration management and application deployment.
- ***Implemented testing environment for Kubernetes*** and administrated the Kubernetes Clusters. Migrated on-site solutions to cloud-based offerings, such as Amazon's AWS.
- ***Responsible to setup the execution of automated tests and development process*** using version control System Git and to development Continuous Integration (CI) tools with Jenkins.
- ***Utilized (IAST) solution to identify and manage security risks*** associated with vulnerabilities in running web applications using dynamic testing techniques.
- ***Provided leadership in the DevSecOps areas of Vulnerability Scanning, Certificate Management, Password Policy Management, Data Analysis of security monitoring outputs, coordination of Remediation Patching, and other daily Security and Compliance efforts.***

**Chetu Inc.**, Plantation, FL

**Jan -2017 – Nov-2018**

*Software Development Company provides tailored software solutions from industry specialized developers.*

### **Enterprise Cloud Product Manager**

Collaborated with Product Managers/Owners, end-users, operational leadership, and subject matter experts to understand current and future goals/requirements defining the data architecture framework, standards, and best practices, principles, and patterns. Identified, designed, and executed product initiative plans to meet customer/user needs: product vision, roadmap, and requirements documentation. Lead development team to create goals and implementation strategies, which support vision and the mission. Owned measure and demonstrate progress towards goals with metrics created and tracked in partnership with leadership and analytics

- ***Participates as an evaluator and negotiator*** for procurements related to data and analytics activities, led the charges of periodic architecture related capability assessments, and provide reports and recommendations to leadership to continuously advance our architecture.
- ***Restructured over budgeted and error-plagued vehicle tracking and parking project*** into a new innovative solution delivering on time and within the budget, estimated over-headed cost was \$2.9M, cut-down to \$1M at the completion receiving “Excellent Award” from the CEO.

- **Devised, developed, and delivered vehicle tracking and agriculture GIS custom software** application for enterprise clientele.
- **Pioneered GIS in the agriculture** sector by designing interactive mapping system using custom GIS application to integrate into drone and unmanned aerial vehicles (UVA).
- **Utilized SAFe scale framework environment** and version control system reducing development time and increasing the rate of successful deployments.
- **Utilized Mongo DB** NoSQL database to create, read, update and delete documents data.
- **Automated the deployment of 90+ cloud servers** using Docker, Kubernetes, and Aws with the help of python
- **Simplified infrastructure automation by utilizing tools like Vagrant, Terraform, Packer, and Vault**, you can manage virtual machines, define declarative infrastructure as code, automate machine images, and manage secrets across your infrastructure.

## **Electronics Row**, Wheat ridge, CO

**Dec-2011 – Dec-2016**

*Consumer electronics products manufacturer and corporate incentive program for corporation industry.*

### **Lead Cloud Product Manager**

Designed and architect on one or many cloud computing providers (e.g. GCP, AWS, Azure) of modern data movement technologies (e.g. serverless, real-time, as needed computing, low latency data movement, high volume data management, etc...). Lead the implementation of Devops processes to deliver code quickly with a high degree of confidence and quality. Lead and supported the Product Owners Community of Practice by facilitating collaboration of cross organizational teams to establish, develop and roll out new and enhanced capabilities. Recognized as the "go to" leader and trusted advisor for product set. Work collaboratively with the team of Product Owners.

Communicate value and status to various stakeholders and levels of management.

- **Lead the design and architecture** of Data Engineering technical solutions in an agile and incremental manner.
- **Developed of the Data Platform** consisting of the data lake, analytics environment, enterprise data warehouse, and visualization tools. Identified and translated Big Data challenges into technical approaches yielding actionable recommendations across multiple, diverse domains.
- **Conceptualized, built/developed e-commerce/business platform** for incentive programs launched, marketed, and maintained enhanced product features annual \$8.6 million in revenue.
- **Responsible for product enhancement, market campaign, market research** and maintained solid proprietary responsible for increasing subscription, for incentive program throughout USA and Canada.
- **Led continuous improvement efforts** to develop interfaces in support of multiple databases, systems, and technologies including VMware, AWS and MS SQL.
- **Managed Docker orchestration** and Docker containerization using Kubernetes.
- **Utilized Gherkin Language** to develop Behavior Driven Testing.

## **Integra Telecom**, Denver, CO

**Dec-2009 – Nov-2011**

*Telecommunication infrastructure and Service Company*

### **Manager, Enterprise**

Maintained strong relationship with c-level executives across all verticals, proactively maintain pipeline using our CRM, Salesforce, achieve and consistently exceed monthly sales goals. Developed skills necessary to transition into an enterprise sales manager role.

- **Maintain sole responsibility for all sales and manage a \$3.2 million** territory throughout the USA.

- *Serve in a consultative role to provide clients with custom designed hardware and software* solutions and system Integration Company with its own line of distributed process control equipment.
- *Wrote proposals, performed cash flow analyses*, determine costs, and negotiate contracts, participated in panel building of systems that included a 5000-wired connection with 70 of the company's hardware devices.

**MasTec Technology**, Centennial, CO

**Dec-2006 – Nov-2009**

*Infrastructure engineering and Construction Company*

### **Technical Consultant**

Consultatively, sold A/V hardware, security surveillance, automation system, intercom technology and service to the commercial and residential constructions companies, developed and delivered technical presentations, product demo, prepared contract proposal, floor plans, bid estimation and SLA documentations.

Consistently exceeded sales goal by an average of 150% ranked # 1 (Q2, Q3, and Q4 FY 06).

- Grew Denver area territory 12% within first 6 months for company with annualized sales of \$3 million.
- Exceed industry average in profit generation: 10% in sales profit vs. industry average of 2% 7%.

**Long Building Technologies**, Englewood, CO

**Jan-2004 – Nov-2006**

*Building integrator provide products and services in building automation and security solutions.*

### **IT Network Administrator**

Designed and constructed local area network and wide-area network connecting seven location offices to corporate headquarters. Oversaw setup of servers and desktop workstations. Recruited and trained network and desktop support technicians. Prepared budgets and managed expenses. Configured routers, firewalls, domain name services, e-mail, Web, and ftp services.

- Designed new systems application that provided Web-based monitoring of all telecommunications.
- Established technical infrastructure requirements, including voice communications, voice over IP, hardware/software applications, PBX, CMS, server applications, SQL database and Meeting Place.
- Analyzed costs resulting in reduction of \$5M in redundant technology-related expenses.
- Identified significant drain on corporate budget, reduced expenses by 50% within 90 days.

## **EDUCATION**

[Skillssoft Learning: Certificates](#) [LinkedIn Learning:Certificates](#)

**Bachelor, Major Computer Science**, 1996 – Bhaktivedanta Gurukula International, Mathura, UP India

**Information Technology, Diploma** 1993 – Sri Dham Mayapur School, Nadia, WB India

**High School**, 1989 – Siddhartha Vanasthali Institute, Kathmandu, Nepal

## **ARTICLES**

(1) [How the cloud data life cycle guides security efforts in the cloud.](#) | [LinkedIn](#)

(2) [Cloud Migration Plan: A Comprehensive Guide](#) | [LinkedIn](#)

(3) [Exploring the Benefits of Public, Private, Hybrid, Multicloud and Polycoud](#) | [LinkedIn](#)

(4) [Neural Networks Overview](#) | [LinkedIn](#)

(5) [What is Footprinting & Countermeasures](#) | [LinkedIn](#)

(6) [Explainable AI, or \(XAI\)](#) | [LinkedIn](#)

(7) [COMPARING DEEP LEARNING AND MACHINE LEARNING](#) | [LinkedIn](#)

(8) [KUBERNETES CLUSTER ARCHITECTURE](#) | [LinkedIn](#)