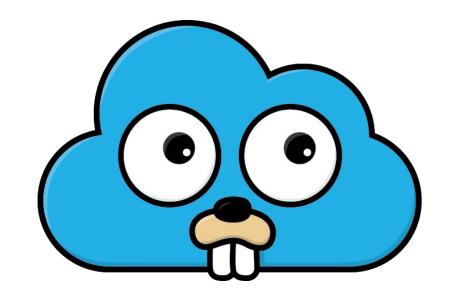
CLOUDRAFT

Career in Cloud

Anjul Sahu, CEO, Cloudraft







About Me





- Founder and CEO, Cloudraft
- Alumni of SGSITS IT 2008
- 15 yrs exp. Wearing multiple hats, DBA, Cloud Engineer, DevOps Engineer, Architect
- Organizer Cloud Native Indore
- Previously worked at Lummo, InfraCloud, and Accenture
- Apart from work, I do writing, mentoring and travel
- Connect with me → <u>linktr.ee/anjulsahu</u>
- Cloud Native Weekly anjulsahu.substack.com



Agenda

- Introduction
- Scope of work, what are various roles
 - Cloud Architect
 - Security
 - Developer
 - DevOps Engineer/SysOps
 - Advanced
 - Al
 - Data Analytics
- Motivation
- Roadmap
- Resources
- Q&A

Introduction

Cloud computing is the on-demand delivery of IT resources over the Internet with pay-as-you-go pricing. Instead of buying, owning, and maintaining physical data centers and servers, you can access technology services, such as computing power, storage, and databases, on an as-needed basis from a cloud provider.

5 Characteristics:

- On-demand Self-Service
- Broad network access
- Resource pooling
- Rapid Elasticity
- Measured Service

3 Service Models:

- laaS
- PaaS
- SaaS

4 Deployment Models:

- Private Cloud
- Community Cloud
- Public Cloud
- Hybrid Cloud

Cloud Services

Traditional On-Premise (On-Prem)

Applications

Data

Runtime

Middleware

Operating System

Virtualization

Servers

Storage

Networking

Infrastructure as a Service (IaaS)

Applications

Data

Runtime

Middleware

Operating System

Virtualization

Servers

Storage

Networking

Platform as a Service (PaaS)

Applications

Data

Runtime

Middleware

Operating System

Virtualization

Servers

Storage

Networking

Software as a Service (SaaS)

Applications

Data

Runtime

Middleware

Operating System

Virtualization

Servers

Storage

Networking

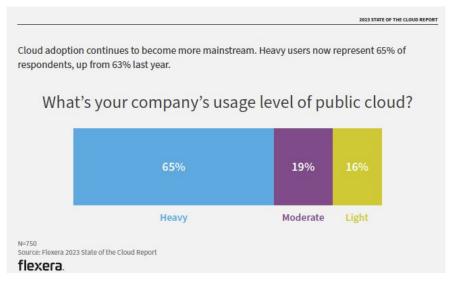
Roles

Most of the roles are often overlapped with other higher level roles like Software Engineer, DevOps Engineer, Solution Architect, etc.

- Cloud Developer
- DevOps / Cloud Infrastructure Engineer / Administrator
- Architect
- Security Engineer
- FinOps Practitioner
- Some Specific Roles
 - Al/Machine Learning Engineer
 - Data Analytics
 - Databases
 - Networking

Motivation

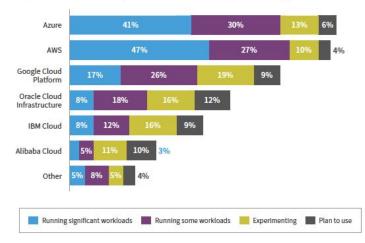
Majority of Enterprises and SMBs are using Cloud for their workload



Motivation (contd)

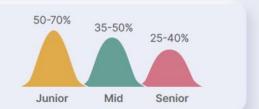
 Most Job Descriptions and Roles ask for knowledge of at least one major cloud provider such as AWS, Azure or GCP.

What public cloud providers does your organization use?





Average salary increase when switching jobs



Hiring trends

Industry 4.0 and Web3 have led to a rise in demand for professionals with expertise in blockchain, IoT, cloud computing, emerging technologies and SCADA.

A focus on leveraging technology for customer acquisition has led to the creation of more roles in fintech, retail, product / SaaS, agritech and logitech.

Demand is high for data scientists, cybersecurity experts, digital transformation experts, engineers and product managers.

Compensation & benefits trends



Incentives
Joining bonus, and retention bonus



Others
ESOPs, higher equity in product /
e-commerce companies

Skills in demand

Data Science

Cloud (AWS, Azure, GCP)

Full stack (MEAN, MERN)

Roles in demand

C-suite (Technology, product, security)

Design (UI / UX)

IT business partners

Top Hiring industries

Financial services

Consumer / consumer tech

Global business centre / shared services centre

Credits: Page Insights 2023

Software Engineer in Cloud Company

Cloud Architect

AI/ML Engineer

Software Engineer DevOps Engineer Security Engineer End User

Support Engineer

Roadmap

"Any fool can know. The point is to understand."

— Albert Einstein

Cloud is...

- Someone's else's computer
- Multi-tenant or shared system usually
- Open to all (Internet)
- Having unlimited capacity (theoretically), also unlimited \$\$\$
- Distributed system, it fails all the time
- Good for rapid innovation
- Pay as you go, no upfront investment
- Treat resources as Cattle, not Pets

What to learn?

- RELIABILITY: How to design for failure?
- SECURITY: How to make it secure?
- COST EFFICIENCY: How to use it in cost-effective manner?
- CLOUD NATIVE: How to use Cloud Native Solutions? Eg. Event driven architecture
- SCALABLE: How to utilize the power of Cloud or Unlimited Scale and Elasticity?

Basic

- Compute or Server AWS EC2, Azure VM, GCP VM
- Storage (HDD/SSD) AWS EBS, Azure Disk, Google Persistent Disk
- Object Store (none) AWS S3, Azure Blobs, Google Cloud Storage
- Phy Network (Ethernet) Private and Public Network, Subnets, SDN
- RDBMS AWS RDS, Azure SQL, Google Cloud SQL
- Firewall Security Groups

Roadmap

- Focus on fundamental subjects (Operating System, Databases, Networking, Distributed Systems, Programming Skills)
- Following the syllabus of Certificate is good but having a certificate != Skills or Job
- Having a cert may increase your chances of passing through first filter but this is not a guarantee
- Participate in Open-source projects around Cloud (Hacktoberfest is coming → <u>https://hacktoberfest.com/</u>)
- Do hands-on and show Proof through Github/Writing.
- All major cloud providers have created learning path and mostly it is free.
- Utilize free tier/free credits
- Include Containerization and Kubernetes as it is a norm
- Infrastructure as code Terraform
- Best resource is **Documentation** and events like **AWS Re:Invent, Microsoft Ignite,** Google Cloud Next

Recommended: Watch James Anderson/AWS Relnvent 2016



Resources

- Azure https://learn.microsoft.com/en-us/training/azure/
- AWS https://aws.amazon.com/training/learn-about/
- GCP https://cloud.google.com/learn/training?hl=en
- Mentoring mentoring-club.com, Discord

Q&A

Connect with me:

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