

## RESUME [ Shubhangi P. Kharche]



Cloud Solutions Architect, Technical Trainer, Researcher

Target achiever, Goal Oriented

### Profile in brief

- Technical Trainer with more than 2 decades of exceptional experience in training the students of Electronics and Telecommunication. More than a decade experience in research and development with innovative ideas imparted to the candidates performing research and development.
- **AWS certified Cloud Solutions Architect Associate, Pursuing Post Graduate Program in Cloud Computing** (Great Learning in collaboration with University of Texas)
- **PhD in Electronics and Communications** with specialization in wireless sensor network (WSN), 6LoWPANs and IoT

### Area of expertise

- Cloud solutions architect Development centric/ Customer centric
- Teaching /Corporate Trainer
- Administration
- Leadership
- People management
- Research and People
- Creative • Innovation
- Agile
- Can do Attitude
- Individual contributor
- Collaborative
- Adaptability
- Multi Cloud
- AWS services
- Azure Services
- GCP Services

### Professional Experience

**Post Graduate Program in Cloud Computing, Great Learning in collaboration with university of Texas.**

#### COURSE PROJECTS:

##### Deploying web app using ECS

Course Containers:

In the last decades, small and large enterprises have invested heavily in developing bespoke applications. Since these applications have been built and enhanced over a period of time, they are complex and any form of re-engineering to convert it to smaller, modular and independently hosted services is difficult. Managed Container Services from cloud providers allows predictable and reproducible packaging of such apps. This project moved & deployed a classical web app to AWS ECS containers.

##### Skills and Tools

Docker, ECS, Load Balancer, Fargate

##### Create and Manage a Nonrelational Database using AWS DynamoDB

Course Big Data Management & Analytics on Cloud:

DynamoDB is a NoSQL database, allowing for flexible schema design that can evolve with your application. It provides low-latency performance with near-infinite scaling, so you do not need to worry about performance bottlenecks as your application grows. Create DynamoDB tables with required secondary keys and perform CRUD operations. Use Python and Boto 3, AWS SDK for Python, for interacting with the DynamoDB APIs

##### Skills and Tools

DynamoDB, NoSQL, Python, Boto3, EC2

##### Building an Automated Business Process using Managed Services on a Public Cloud

Course Managed Services on AWS:

In the connected world, it is imperative that the organizations be interlinked with the customers and vendors. This process has been very sluggish, manual, batch-based and prone to failures. Such Integration design has lead to impaired decision-making and delays in the detection of fraudulent actions. This project created an automated, event-based real-time process using managed cloud services that do not have these limitations.

##### Skills and Tools

AWS S3, AWS SNS, AWS RDS, Python, Boto3

##### Team Communication Solution

Course Cloud Computing on AWS:

Implementing a Team Communication Solution using Mattermost and AWS. This is a scalable solution that can be hosted on a on-premises data center or on a public cloud, with its servers, storage etc. completely managed and controlled by your IT team in accordance with a company's governance and security requirements.

##### Skills and Tools

EC2, VPC, Security Group, NAT Gateway / NAT Instance

##### Microsoft Azure Project

Configuration of Azure Virtual Private Network, Azure Virtual Machines, Public and Private Subnets, NAT Gateway, Network security Groups, Database Server, and Mattermost.

##### Skills and Tools

Azure VPN, VM, NAT Gateway

##### Google Cloud Platform

Google Compute Engine

### Capstone Projects at Great Learning:

**Capstone 1:**

Send Fanout Event Notifications with Amazon Simple Queue Service (SQS) and Amazon Simple Notification Service (SNS)

**Capstone 2:**

Containerizing Lambda deployments using OCI container images

**Other Skills:**

Linux shell scripting, AWK scripts, Cisco router and switch configuration, Zolertia Z1 motes configuration, Internet of Things (IoT) set up with Z1 motes, Cooja simulator, Contiki OS, IoT protocols, data visualization, Machine Learning, Deep Learning, IPv6 over low power wireless personal area networks (6LoWPAN), data analytics, Excel dashboards, Tableau, IoT projects and latest trends in industry

- Trainings conducted on NS2, Cisco Certified Network Associate (CCNA), RHEL, and LaTeX documentation

**Current Experience:**

Associate Professor: SIES graduate school of technology, Nerul, Navi Mumbai

Duration: 7 years

**Previous Experience:**

Assistant Professor: SIES graduate school of technology, Nerul, Navi Mumbai

Duration: 6 years

Lecturer: SIES graduate school of technology, Nerul, Navi Mumbai

Duration: 4 years

Lecturer: Godavari College of Engineering, Jalgaon

Duration: 1 year 8 months

Lecturer: MGMs college of computer management, Aurangabad

Duration: 1 year 2 months

Lecturer: Marathwada institute of technology, Bulundshahr, UP

Duration: 1 year

Lecturer: Babasaheb Naik College of Engineering

Duration: 1 year 5 months

- Innovative and creativity: **Filed copyrights and patent**, innovative teaching pedagogies and ICT tools
- More than **30 research publications** in various international and national conference and journals pertaining to Internet of Things, Wireless Sensor Networks, IPv6 over Low Power Wireless Personal Area Networks, Mobile communication: 6G
- Women researcher award by VGood technology factory International Scientist Awards on Engineering, Science and Medicine in the year 2021
- Best paper award at IEEE international conference held at IISC Bangalore in 2016
- Delivered invited talks on 6G communication networks, Internet of things (IoT), 6LoWPANs and Next generation networks
- **Secured top 2 % position** in NPTEL course on computer networks and internet protocol conducted by IIT Kharagpur at international level

- **Guided Projects:**

Smart Refrigerator using IoT, Book reader using Embedded systems, Eye Disease Detection Using Machine Learning, College enquiry chatbot using Rasa framework, IoT based landslide detection and monitoring system, cotton leaf disease detection using machine learning, Meeting summarization system, Autonomous road maintenance system, Accident detection, prevention and reporting system, Brain Activity Detection and analysis using ECG, Automatic Attendance System, Car Monitoring System Using Raspberry Pi, Secure Door Lock System Using Raspberry Pi, Patient monitoring system using GSM, Sensor Node Failure or Malfunctioning Detection in WSN, Water Quality Monitoring System using Zigbee WSN, Data Transfer using Li-Fi, Study of security features of IPv6, Electronic Circuit Breaker Monitoring Using GSM, Microcontroller based Dam Gate control system, CRYPTOGRAPHY AND NETWORK SECURITY, WLAN Communication and Security, DESIGN AND ASSEMBLY OF 1KVA ON-LINE UPS, Hybrid power plant management system, CDMA2000-1x System & Implementation of TeleControl System, Log Prefixing of Firewall, Intrusion prevention system

- **Subjects Taught:** Mobile communication, Wireless networks, Optical fiber communication, Embedded systems, Linux skill lab, Computer communication networks, Random signal analysis, wireless networks, Digital telephony, satellite communication, operating systems, Basic Electrical Engineering, Principals of control systems, Advanced control systems, microprocessors and peripherals, assembly language programming, Electrical and Electronics Engineering, Advanced Telematics, Communication Engineering, Network Analysis and Synthesis, microprocessors and microcontrollers, assembly language programming, computer oriented numerical methods, computer system organization, Solid state devices and circuits, electronic switching systems, computer system organization, and Cloud Computing.

**Links to Social Community Websites:** [Google Scholar](#) [Linkedin](#) [Researchgate](#) [Youtube](#)

Education	Institute	University	Location	Passing Year
Post Graduate Program in Cloud Computing	Great Learning	University of Texas at Austin	Mumbai (Online)	2022
PhD in Electronics and Communication	Usha Mittal Institute of Technology	SNDT Women's University	Mumbai	2020
ME in Electronics	Jawaharlal Nehru Engineering College	Dr. Babasaheb Ambedkar Marathwada University	Aurangabad	2004
BE in Electronics and Telecommunication	Government College of Engineering	Dr. Babasaheb Ambedkar Marathwada University	Aurangabad	1999
HSC	Vasant Rao Naik Science College	Aurangabad board	Aurangabad	1995
SSC	Saint Francis De Sales High School	Aurangabad board	Aurangabad	1993

**Contact Details**

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 Date of Birth: August 24<sup>th</sup>, 1977

Enclosure: Annexure [Awards, Research publications, Intellectual Property Rights, (Seminars, conferences, workshops, trainings: Organized, Attended and Connected)]

Great Learning e-portfolio