

# MONIL SHAH

Chicago • (312) 998-5558 • shahmonil.work@gmail.com • LinkedIn • GitHub • Portfolio

## SUMMARY

AWS Certified Solutions Architect with hands-on experience supporting production environments, automating cloud infrastructure, and building resilient systems using AWS, Python, and Terraform. Skilled in incident response, CI/CD, and monitoring with tools like CloudWatch and GitHub Actions.

## TECHNICAL SKILLS

- **Programming Languages:** Python, JavaScript, C, Java, R, Bash.
- **Databases and DevOps tools:** SQL, RDBMS, Docker, AWS CloudFormation, Kubernetes, Terraform, AWS Lambda.
- **Cloud Platforms:** AWS (EC2, S3, IAM, VPC, CloudWatch), AWS CLI, Linux, Azure(basic).
- **Libraries & Tools:** Pandas, NumPy, FastAPI, Git, GitHub Actions, WireShark, Powershell.

## WORK EXPERIENCE

### Teaching Assistant

Jan 2024 - May 2025

*Illinois Institute of Technology, Chicago, IL*

- Assisted in teaching ITM 705 (Microsoft OS), ITM 706 (Linux OS), ITM 707 (OS Security), and ITMO 540 (Data Networks).
- Handled incidents and escalated system issues using structured ticketing system (Salesforce), contributing to root cause analysis and issue resolution.
- Conducted office hours and 1:1 sessions to troubleshoot lab environments, and support network simulation tasks.
- Assisted faculty in grading assignments, creating lab instructions, and providing feedback that improved overall student performance and engagement.

### DevOps Engineer

June 2022 - May 2023

*Bliss Web Solutions, India*

- Deployed client websites (Magento, WordPress, custom Node.js) on AWS EC2 using shell scripts, ensuring consistent, repeatable builds.
- Configured and maintained CI/CD pipelines with GitHub Actions and Bash scripts while establishing CloudWatch alarms and log alerts, reducing manual deploy steps from five to one and preventing unplanned downtime.
- Automated nightly MySQL backups with a Bash script, saving 80% of manual effort.
- Collaborated with developers to troubleshoot web-app errors, using logs and simple metrics to resolve 90% of incidents within the first hour.

## PROJECTS

### AWS Cloud Resume Challenge

- Built and deployed cloud-resume website using AWS services including S3, CloudFront, Route 53, Lambda, and DynamoDB.
- Wrote Python-based Lambda functions to update and fetch a live visitor counter integrated with frontend JavaScript.
- Used Terraform for backend Infrastructure-as-Code and GitHub Actions to automate frontend deployment to S3.

### AWS Infrastructure Automation

- Automated the deployment and teardown of cloud-native environments on AWS using Bash, AWS CLI, and Python (Boto3).
- Created and managed EC2 instances, RDS databases, S3 buckets, and SNS topics through infrastructure-as-code scripts.
- Developed Python-based validation scripts to verify resource creation, application health, and environment cleanup.

### Income Inequality Analysis using R

- Preprocessed NLSY97 data and applied hypothesis testing and regression modeling to analyze income disparities.
- Built statistical models in R to examine the impact of gender, education, and background on income levels.
- Created a structured report in R Markdown with visualizations and data-driven insights.

### Secrets Management with Vault & WordPress

- Provisioned two Ubuntu VMs using Packer and Vagrant to deploy a Vault server and a WordPress application.
- Secured application secrets using HashiCorp Vault and configured environment-based dynamic retrieval on startup.
- Automated WordPress provisioning via shell scripts and validated Vault integration with live environment variables.

## EDUCATION

### Illinois Institute of Technology

Chicago, IL

*Master's in Information Technology and Management, GPA: 3.8/4.0*

May 2025

### GLS University

India

*Post Graduate Diploma in Computer Application, GPA: 3.7/4.0*

May 2023

### Gujarat University

India

*Bachelor of Science in Physics (B.Sc), GPA: 3.6/4.0*

May 2022

## HONORS & ACHIEVEMENTS

- AWS Certified Solutions Architect
- AWS Certified Cloud Practitioner
- Bronze Honor (Top 20%) in the International Astronomy and Astrophysics Competition