# Deepakumar V U

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## Areas of Expertise

- Product Management
- Solution Architecture
- Security Review
- Mentoring
- Feature Engineering
- Golang
- Python
- DynamoDB
- TimeStream DB
- Lambda
- SQS

- SES
- SNS
- API Gateway
- WAF
- Cloud Watch
- IoT Core

- AWS Private CA
- Docker
- Cloud Formation
- SAM
- SAR
- Jenkins

# Work Experience

## **Senior Cloud Backend Engineer**

**Espressif Systems** 

January 2024 – Present Pune, Maharashtra

Building Matter DAC Service, a managed PKI service for IoT Devices.

Tech Stack: Golang, AWS, RBAC

- Leading various initiatives to enhance the product experience.
- Designing an in-house and highly flexible RBAC for Rainmaker and Other Espressif products.

#### **Cloud Backend Engineer**

**Espressif Systems** 

July 2021 – December 2023 Pune, Maharashtra

Led the design and development of a scalable cloud-based PKI product, achieving rapid delivery within 8 weeks, and received recognition for excellence with the ESP-Champion-Club Award. Additionally, optimized serverless architectures, improved test coverage, and mentored junior team members while implementing significant cost and performance optimizations.

Tech Stack: Golang, AWS, Jenkins, Python, GitLab

- Lead the design and development of a **highly scalable cloud-based PKI** product and delivered the first iteration of the product within **8 weeks**.
- Received ESP-Champion-Club Award in Q3 2023 for the excellent work done as part of the DAC Pre-provisioning team.
- Designed and implemented numerous **highly scalable** and **cost-efficient** cloud **server-less architectures** with a wide range of AWS services. Features like group sharing, stats service, and time series DB for IoT nodes.
- Worked towards setting up scenario based **unit testing framework** and achieved a **+95%** test coverage for newly added code.
- Optimized services by introducing **concurrent processing** for polling and data processing functions with channels and semaphores.
- Introduced request batching to reduce request execution time by 20% and costs by 30%.
- Implemented various optimizations like **dependency management** to **eradicate** production build **errors**, dependency **vulnerability screening** and setup Gitlab pipeline for merge requests.
- Mentored junior team members.

### **Associate Cloud Engineer**

**Espressif Systems** 

December 2020 – June 2021 Pune, Maharashtra

Developed key features for RainMaker in Golang and resolved a critical privilege escalation vulnerability. Introduced tools to streamline team development.

Tech Stack: Golang, AWS

- Worked extensively in Golang to develop numerous features for RainMaker.
- Identified and promptly fixed a platinum level privilege escalation vulnerability in RainMaker.
- Discovered various tools for the team to ease the development.

#### **Software Engineer**

July 2019 – November 2020

UBS

Pune, Maharashtra

Streamlined risk simulation models using R and reduced debugging time by 80% with a custom error-logging package. Integrated DevOps with TeamCity and Puppet, cutting deployment time by 50% and issues by 90%.

Tech Stack: R, Oracle MySQL DB, Python, Teamcity, Puppet, Shell Scripting

- Worked extensively in R to process inputs necessary for risk simulation models.
- Integrated **DevOps** into our product deployments using Teamcity and Puppet to **reduce deployment time** by **50%** and issues by **90%**.
- Developed R package to extensively log errors for parallel execution, which aided in cutting the time spent debugging by 80%.

## Education

#### **Pune Institute of Computer Technology**

**B.E.** Computer Engineering

August 2015 – June 2019

Pune, Maharashtra

- CGPA: 8.88/10.0
- Coding and Financial lead of PICT Robotics 2018.
- **Project:** Automated Glaucoma detection using CNN, sponsored by National Institute of Ophthalmology (NIO).

## **Positions**

#### **Vice Chair**

Connectivity Standards Alliance

October 2023 – Present Pune, Maharashtra

- Acting as a Vice Chair of Security Design Tiger Team.
- Leading DA-PKI Revocation for Matter.

## Certifications

## AWS Certified Solutions Architect - Associate

Issued June 2022 - Expires June 2025