VISHNU PRASAD

AWS/SERVERLESS DEVELOPER

CONTACT

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📍 Bangalore, India

EDUCATION

Education

Diploma In Electronics Engineering

2007-2010

LANGUAGES

English ◆ ◆ ◆ ◆ ◆

SKILLS

AWS

Lambda, API Gateway, S3, Lambda@Edge, Step Functions, CloudWatch, CloudFormation, DynamoDB, Cognito, Athena, Glue, MediaConvert, MediaPackage, Kinesis, SQS, SNS, CodeBuild, CodePipeline, Kinesis

Programming Languages

Javascript/TypeScript/Python

Databases

DynamoDB, MongoDB, MySQL, PostgreSQL

Blogs

https://vishnuprasad.blog
https://dev.to/imewish

Talks

https://youtu.be/Yb5yFr7u_qA
https://youtu.be/DlOSlBUUA_c

PROFILE

Experienced Serverless Developer and Architect with over 8 years of hands-on expertise in the AWS Cloud. My professional journey has been marked by a deep understanding of cloud technologies, particularly in the realm of Serverless computing. My career spans various industries, including OTT, E-commerce, Blockchain, and Marketing Technology (MarTech). Here's a bit more about my journey:

Serverless Expertise: With more than six years in the field, I have honed my skills as a Serverless Developer and Architect, specializing in AWS Cloud. My focus has been on crafting highly scalable and efficient serverless architectures that drive innovation and cost-effectiveness for businesses.

DevOps Proficiency: I bring a strong DevOps background to the table, complementing my development skills. This blend of talents allows me to streamline processes, ensure continuous integration and delivery, and maintain robust, secure, and highly available serverless applications.

TypeScript Development: TypeScript is a powerful tool in my toolkit. I leverage this language to build robust, type-safe serverless applications that enhance reliability and maintainability.

Diverse Industry Experience: Throughout my career, I've had the privilege of working across diverse industries. My expertise extends from the Over-The-Top (OTT) industry, where I've optimized video streaming platforms, to the dynamic landscape of E-commerce, where I've helped businesses scale and thrive online. My experience also includes the innovative world of Blockchain, where I've contributed to blockchain-based applications, and the dynamic field of Marketing Technology (MarTech), where I've supported data-driven marketing initiatives.

WORK EXPERIENCE

Senior Backend Engineer

Socket Tech(Contract, Remote)   Sept   2022 - Present

- Reengineered their initial monolithic architecture, which relied on EC2 instances and an Application Load Balancer (ALB), into a modern microservices-based ecosystem by leveraging various AWS Serverless services. These services include AWS Lambda for computing, API Gateway for RESTful API management, EventBridge for event-driven architecture, S3 for scalable object storage, Secrets Manager for secure credential management, and CloudFront for content delivery acceleration, among others
- Introduced TypeScript to the development team, facilitating the creation of robust and strongly typed codebases.
- Developed RestFul APIs and other Backend Services for a Quoting Engine that helps users find the cheapest and fastest routes(Bridges) to transfer their Crypto Assets between chains, Using TypeScript, PostgreSQL, MongoDB *(https: //bungee.exchange/)*.
- Built a blockchain indexer backend service from scratch, which helps users track their Token bridging status. Using TypeScript, PostgreSQL, and MongoDB (https://socketscan.io/).
- Actively monitored AWS usages and did optimization to reduce infrastructure costs by implementing proper caches across services
- Managed AWS accounts, implemented AWS Organizations to segregate production and development workloads, enhanced security by replacing IAM-based logins with G Suite logins, and streamlined user and permission management through AWS IAM Identity Center

Senior Serverless Developer

Serverless Guru, LLC (Contract, Remote)   Dec 2020 - Aug 2022

- Contributed to various aspects of a serverless email personalization engine.
- Developed a scalable, self-healing, fault-tolerant backend for the personalization and email-sending engine using NodeJS/TypeScript, AWS Lambda, API Gateway, DynamoDB, SNS, SQS, S3, Serverless Framework
- Built the infrastructure for the services using Terraform/CloudFormation/Serverless Framework
- Implemented circuit breaker mechanism to help the system to queue messages if a third-party integration/service goes down and process the messages once the service is up.
- Implemented DLQs and DLQ handlers in different parts of the system to handle/retry/alert failed events/messages
- Built a monitoring and alerting system for the personalization engine using CloudWatch Custom Metrics, Alarms, Slack, etc
- Built a multi-account/Stage deployment pipeline with AWS Code build and Code Pipeline

Devops Engineer

Fabric Inc, Bangalore, India   Feb 2020- Nov 2020

- Contributed to various aspects of a multi-tenant serverless E-Commerce framework
- Developed a tool to create multiple serverless environments for different clients using, NodeJS, AWS Lambda, and Step Functions
- Developed a Frontend app for Multi account/Multi-tenant Deployable CICD with RBAC using Bitbucket Pipelines, AWS Cognito, DynamoDB, API Gateway, Lambda and VueJS, NodeJS
- Enabled Observability tools like X-Ray, and Epsagon across all the applications in the organization
- Trained developers on troubleshooting app issues via CloudWatch, and Epsagon control panels
- Helped Developers implement Serverless Best Practices and troubleshooting.

Devops Engineer

Matic Network(Polygon), Bangalore, India   Aug 2019- Feb 2020

- Contributed to building backend infra and monitoring tools for blockchain networks on AWS Cloud, using NodeJS
- Built and multimode (100 + nodes) testnets on AWS EC2 using Chef, Terraform
- Managed App configurations deployments using Chef
- Setup multi-stage CICD using AWS Code pipeline, Code build
- Migrated APIs from EC2 backend to AWS Lambda and API Gateway and made it scalable
- Migrated frontend apps from EC2 and hosted on S3 with CloudFront
- Developed a service dashboard to show the status of each testnets and its transactions using NodeJS, VueJS, Lambda, S3, API Gateway

System Administrator

Spuul Digital Entertainment, Mumbai, India   Jan 2015 - July 2019

- Contributed to various parts of a global OTT platform based on Indian content (Live and VOD content)
- Setup up load balancing autoscaling for Ruby-based backend API
- Managed application configurations using **Chef** and wrote multiple cookbooks
- Developed and managed a serverless Video Ingestion and Encoding Backend service With NodeJS, Zencoder, AWS Lambda, S3, DynamoDB, MediaConvert, MediaPackage, Cloudfront, Step Functions, Batch, Serverless Framework
- Developed a front-end app for the above backend app where users can choose content from S3 and manage encoding as per custom needs. The app was built using VueJS, S3, and Cloudfront, Cognito

- Developed a dashboard app to provision/manage/monitor Live Channels using VueJS and S3 for frontend and DynamoDB, CloudWatch Metrics and Alarms, API Gateway, Lambda for the backend
- Developed a serverless Analytics and ETL pipeline Data-lake using AWS API Gateway, S3, Kinesis, Lambda, Glue, Athena
- Developed an Authentication on edge service, with Lambda@Edge and Cognito user pools for staging apps. Which adds an authentication mechanism on CloudFront.
- Developed an internal documentation app using Go Hugo, S3, and CloudFront

System Engineer

Cinesoft Private Limited, Kerala, India   Oct 2012 - Dec 2014

- Built hardware backend infra for an OTT platform from scratch
- Installed C-Band dish antennas to receive free-to-air channels for Live channels
- Set up IP IRD's to encode the satellite feeds to UDP transport streams
- Installed and configures Elemental Live L400 encoder on-premise to encode live channels and video contents to multi-bitrate HLS streams
- Published encoded contents and streams to Akamai CDN

FREELANCE PROJECTS

OTT Platform

- Built entire serverless backend (APIs, Authentication, Storage, Encoding pipeline) for an OTT platform Using NodeJS/TypeScript, AWS Lambda, API Gateway, DynamoDB, MediaConvert, S3, Cognito
- Enabled user authentication of the frontend and backend APIs using AWS Cognito
- Enabled Image and Video content delivery via S3 and Cloudfront
- Used DynamoDB single table design pattern for DB Schema design
- Built content uploading and encoding pipeline using S3 and AWS MediaConvert
- Enabled content encryption with Pallycon Multi DRM and Apple Fair play/Widewine

IOT Service backend

Developed backend for an End To End IoT platform which tracks water levels and water usage consumption in household water tanks with AWS IoT Core, DynamoDB S3, Lambda, Athena, Cognito

On The Fly Image Conversion

This service was built with NodeJS, AWS Lambda@Edge, CloudFront, and S3.
- Source images will be uploaded to S3
- When the customer requests for an image from the browser, if the browser supports **webp**, a **lambda@edge** function will look for **webp** image source on S3, if no **webp is** found, it will convert the source file to **webp** format and store it in the destination. All the subsequent user requests from **webp-supported** browsers will get the **webp** file.

Image Processing Service

- Developed an automated image processing pipeline with AWS Step functions, Rekognition, Lambda
- Generate Multi Format and Resized images on upload
- Extract Image attributes using AWS Rekognition and Lambda
- All steps, failure handling, and custom logic were orchestrated using step functions