

# Vivek Sumanth Chintakula

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## SUMMARY

A Computer Science Master's graduate with **2 years** of experience in software development. Skilled in creating, deploying & debugging cloud-based applications for large user bases. Proficient in **Python, Java** and holds an AWS Developer Associate certification and proven ability to work independently and as part of a team to deliver high-quality software.

## WORK EXPERIENCE

### Amazon Web Services (AWS) - Software Engineer I

Oct 2022 - Oct 2023

*Tech: Java, SpringBoot, AWS S3-SDK,*

#### *Low-cost Storage for Audit logs*

- Designed cost-effective solution for storing Audit logs through extensive cost analysis across various S3 Storage classes.
- Created a Spring Bean to store S3 bucket configurations and seamlessly integrated Bean with AWS-S3 SDK.
- Achieved annual storage savings of up to **\$1.7 million** by storing Audit logs in S3 Glacier Instant Retrieval storage.

#### *Generate Application logs in Native JSON*

- Optimized log retrieval in a security module (HSM) by generating application logs in the native Apache Log4j 2 JSON layout.
- Resolved bottlenecks in Log puller service by eliminating the CPU-intensive log format conversion and improved log retrieval performance by **50%**.

#### *Credential Migration for metric publishing*

- Improved system's security by implementing a Java-based credential solution to generate rotating team-specific credentials.
- Prevented potential security breaches by proactively identifying and eliminating the risk of using hard-coded credentials.
- Migrated to new credentials using feature flagging without any loss of metrics in any production regions.

#### *Log Pulling Optimization*

- Analyzed the distributed partitioned workflow architecture for log pulling and identified the sequential bottlenecks.
- Increased log pulling speed by **70%** by implementing asynchronous multithreading using Java in Log Puller Service.

### Zotec Partners - Software Engineer I

Feb 2022 - Oct 2022

*Tech: Python, Rest APIs, Redis, Lambda, SQS*

- Improved the efficiency of health care data access by developing REST APIs using Python FastAPI framework and facilitated seamless interaction with various healthcare operability resources.
- Reduced retrieval time of patient-specific details by **50%** by mapping data to patient metadata stored in DynamoDB.
- Enhanced healthcare database management by implementing payload validation to ensure data was consistent & accurate.
- Protected on-premises DB from heavy workloads by engineering throttle management system using Lambda, SQS & Redis.
- Employed Pytest framework to develop comprehensive unit test cases, utilizing Moto & Monkeypatch techniques to mock AWS resources for testing purposes.

## EDUCATION

### Masters, Computer Science - Software Engineering

Jan 2020 - Dec 2021

Illinois Institute of Technology, Chicago - IL

**GPA: 3.9/4.0**

### Bachelors, Computer Science

Aug 2015 - Apr 2019

JNTUK- Grandhi Mallikarjuna Institute of Technology, AP - India.

## SKILLS

Programming Languages	Python, Java
Certifications	AWS Developer Associate - Certified
Methodologies	Object-Oriented Programming, Multithreading, Agile, CI/CD, SDLC
Technologies	SQL Alembic, Node.js, Express, Kafka, MongoDB, Git, PostgreSQL, Docker, Spring Boot, Linux
Relevant Courses	Data Structures & Algorithms, Software Project Management, software test engineering, Design Patterns, Serverless development.

## PROJECTS

### *Search Engine Optimization* | *Tech: Python, Data Structures, Multithreading.*

- Processed tweet data by applying Inverted Index Data Structure on 10K+ tweets forming term document incidence table.
- Optimized the query search by **87%** using multithreading and searching for closest match in term document incidence table.

### *Application Development using SDLC and CI-CD Pipeline* | *Tech: Code Pipeline, Code Build, Elastic Bean Stalk, Docker.*

- Developed a minimal CRUD Web-Application using Mean Stack and Postgres, with Nginx as a web server.
- Configured dynamic application routes and generated separate docker images for each environment.
- Used AWS code pipeline for CI/CD, automated unit testing, building, and deployment with CodeBuild and Elastic Beanstalk

### *Data Pipeline for Sentiment Analysis* | *Tech: API Gateway, Lambda, Kinesis, Comprehend, Tweepy, Bigdata.*

- Collaborated with a team of three to perform sentiment analysis by scraping 50K+ tweets using Tweepy API.
- Built a Big Data processing pipeline on AWS Serverless using API Gateway, Lambda and Kinesis.

### *Streaming Live Tweets and Kafka to Elastic Search* | *Tech: Kafka, Tweepy, Elastic Search, Python.*

- Utilized the Tweepy API to stream real-time tweets from Twitter into a Kafka Produce.
- Achieved higher processing efficiency by aggregating and compressing data before sending it to Kafka Consumer.

### *Super-store Dashboard* | *Tech: Mean Stack (MongoDB, Express, AngularJS, Node.js.), Highcharts.*

- Developed interactive AngularJS dashboard displaying dynamic Superstore data trends using Highcharts.
- Deployed REST APIs, interfacing with MongoDB, to efficiently handle user requests and provide JSON data for visualization.