

VISHESH SHARMA

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EDUCATION

Santa Clara University (Santa Clara, CA)

Master's in Computer Science and Engineering

Fall '18 - Summer '20

University of Mumbai (Mumbai, Maharashtra)

Bachelor's in Information Technology

Aug '14 - June '18

WORK EXPERIENCE

Amazon.com

Software Development Engineer

Jan '24 – current

Project: Development of Uber skill; Team: PaSS (or ADECT Tech)

- **Technical Lead for the development of a new Alexa+ Banyan skill for Uber, amongst the first skills to leverage large language models (LLMs) to enable a more natural and interaction between users and Alexa for booking Uber rides.**
- **Collaborated with the product manager, solutions architect, and UX developers to create the initial set of use cases for the Uber skill, providing technical insights on the challenges and feasibility.**
- **Responsible for creating and setting up base framework for the Uber skill such as code packages, pipeline, permissions group, AWS resources etc.**
- **Contributed to UX design and created Alexa Presentation Language (APL) templates, enabling interactive visual interfaces for users on Alexa devices with displays (eg: Echo Show, FireTV etc.)**
- **Served as the go to POC/SME for the Uber skill, troubleshooting issues and providing updates to stakeholders and possible root causes for the QAE team.**
- **Mentored and onboarded multiple team members to the Uber skill, ensuring smooth knowledge transfer and alignment**

Amazon.com

Software Development Engineer

April '23 – Dec '23

Project: Automate Rich Media Test Cases; Team: ADECT Tech

- **Designed and implemented a solution to automatically copy over rich media test case results from one skill to another, if the skills have the same multimedia assets**
- **This feature streamlined the testing process by eliminating the need for manual evaluation of rich media test cases for skills with similar content.**
- **Since its implementation in May 2023, the automated testing system has processed more than 16,800 test cases. Projecting this impact over a one-year period, it is anticipated to eliminate approximately 1,400 hours of manual testing effort.**

Amazon.com

Software Development Engineer

Jan '22 – March '23

Project: CIC DB (PostgreSQL DB) Deprecation; Team: ADECT Tech

- **Led the effort to migrate CIC DB to DynamoDB for 7 out of 8 services.**
- **Coordinated with multiple teams and services across the Alexa organization, including LSM, ASK, ADECTRAD etc. and filed campaign tickets with each of the dependent teams informing them on the ongoing deprecation efforts, and notifying them to switch calls to different database.**
- **The CIC DB contributes to nearly 60% of the total AWS cost for the Skill Certification team. Identified and deprecated RDS instances in beta and prod stages, reducing monthly costs from \$25,588.01 to \$180 (99.29% cost savings)**

Amazon Web Services, Inc.

Software Development Engineer

July '20 – Jan '22

Project: Sales Process Automation System; Team: AWS WWRO-Oper Prd

- **Designed and implemented an automated backend system to streamline the sales process, reducing deal cycle time from 30 days to 5-6 days and enhancing deal closure rates by enabling customized pricing and confidential discounts for global customers.**
- **Developed features, resolved bugs, and created design documents to maintain and improve system architecture, ensuring seamless functionality and efficiency.**
- **Provided on-call support to address customer and software issues, contributing to the stability and performance of a critical business segment generating 60-70% of AWS's revenue.**

Airspace Systems, Inc.

Full Stack Engineer Intern

June '19 – Dec '19

Project: Worked on a full stack web application which detects the rogue drones flying through a protected area in the map and creating helpful user tools in the UI, along with creating visualization graphs and metrics in the UI.

- *Developing relevant tools for the application such as Heatmaps, 3D views of the map, Ruler to measure the distance between a drone and any location on the map, generating a custom report with the details of the drones displayed on the website.*
- *Updated the customers with a daily email report of the various threat level drones in their area, by scheduling a daily CRON job.*
- *Performed visualization using JavaScript by creating charts (bar graphs, pie charts, etc.) based on various input parameters passed from the database.*

Software tools: **PHP (CodeIgniter), JavaScript, SQL, HTML, CSS, Docker, Git, Maptalks, Mapbox.**

TECHNICAL SKILLS

- **Tools & Languages:** Java, Typescript, Python, SQL, Git, IntelliJ.
- **Web Technologies:** HTML, JavaScript, CSS, PHP, RESTful Web Services, APL (Alexa Presentation Language).
- **Cloud Technologies:** Various Amazon Web Services, Distributed Systems, Serverless Computing.
- **Databases:** DynamoDB, PostgreSQL, MySQL.

PROJECTS

Analysis of Microservice performance in Serverless Computing:

Apr '19 – June '19

(Tools used: **AWS Services, JMeter**)

- Performed analysis on various factors which may impact the performance of microservices in serverless computing such as Elasticity, Load Balancing, Memory Reservation, and Programming Languages.
- Leveraged AWS Lambda function for testing out different COLD and WARM start times.
- Recorded the results and formed conclusions based on the data recorded from the analysis of the various factors.
Link to paper: <https://tinyurl.com/y6ghl9g4>

Developed an Android Application (SnapSongs):

Jan '19 - Mar '19

(Tools used: **Android Studio, Java, Firebase**)

- Developed a snapchat like application where instead of photo users can share different songs with its followers.
- Listed the songs stored in the SD card, and extracted the title name, artist name along with the snippet of the song using 'Ffmpeg' library which the user can post by clicking on the share button, and where the user can also listen to the different songs of his/her friends. Interface developed with the help of 'fragments'.
- Developed using Android Studio with the help of Java at the backend and used Firebase for authentication and for storing the user information and the song snippets, along with the user's list of friends and followers.

Designed and Implemented a REST API:

June '19

(Tools used: **Python, Flask, Swagger**)

- Designed a REST API and a backend for a system which was used to allocate different phone numbers to the users, the user can also request for a special number of his/her choice.
- Used Flask-RESTPlus for adding support for building the API, which also has built-in Swagger documentation.

E-Commerce Website:

Aug '15 - Nov '15

(Tools used: **HTML, CSS, Javascript, PHP, SQL**)

- Maintained a database of various items and created a user interactive website experience with different functionalities such as adding item to cart, checking the price of a product etc.
- Developed test scripts and executed functional tests across a variety of environments
- Maintained a sql database where user details are stored along with the user activities which are regularly updated.

ACHIEVEMENTS

- Secured 2nd place in my college (TSEC) at the TSEC Codeathon coding competition held on Sep 30th, 2017.
(Language used: Java)
- Achieved rank – 458 in Code Gladiators 2017 coding competition, held all over the country (India).
(Language used: Java)