

WORK EXPERIENCE

Software Engineer

Google India Pvt Ltd

Oct 2024 - Present

- Created Google Home Quality Dashboard using Google Sql, providing leadership with actionable insights, streamlining quality tracking across various metrics and optimized data loading for improved performance.
- Designed a new integration testing framework from scratch using java and blaze build systems. This involved designing logic for handling complex replay scenarios, serializing and deserializing traffic records from RPC services.
- Optimized infrastructure compatibility for Google Home Platform. Sending device trait updates to mobile clients via RPC services and using Google Pub Sub System.

Software Engineer

Microsoft IDC

July 2020 - Sep 2023

- Designed a visually captivating [user experience](#) and completely redesigned class navigation flow in Teams EDU to make the iOS application more intuitive and easy to navigate. The impact of the feature was significant, benefiting more than [100 million Monthly Active Users](#). The enhanced ease of use for educators and students potentially resulted in a notable increase in Net Promoter Score (NPS) and helped in improving user retention and higher engagement.
- Implemented [Parent teacher Meeting](#) feature in Teams Mobile iOS application for [Microsoft EDU](#) which enabled teachers to create and schedule meetings. Parent Teacher Meetings are a common scenario globally, this online experience bridges the gap between in-person meetings and offers flexibility for busy schedules in turn enhancing the collaboration between home and school. Moreover the feature helped in increasing the overall time spent by educators on Teams and increasing the user engagement.
- Added support for filter on membership roles in [List Team Members API](#) which now entertains more than [25k requests](#) on membership role filters per day in production. Constructed logic for query parsing in expression tree using visitor pattern. The change has improved the overall request execution time and the response consistency.
- Designed [Request to add members APIs](#), one of the prominent customers ask that enabled callers to submit and process the join membership requests of users in a private team using graph APIs.
- Backend engineer owning Microsoft Teams Graph responsible for end-to-end tests, supporting livesite, deployment process and maintaining service reliability, serving data to customers with comprehensive compliance auditing and telemetry.
- Effectively led the migration process of API calls, implementing essential features such as flighting keys, pagination, and lazy loading. As a testament to my substantial contributions within the previous team, I was offered a compelling opportunity to become one of the pioneering members of the newly established API design team at Microsoft IDC Bangalore.

Software Engineer Intern

Microsoft IDC

June 2019 - August 2019

- Developed a standalone tool specifically designed for Microsoft developers to conveniently submit jobs using a Chrome extension user interface. The tool generates synthetic data to aid in various scenarios using daemon scripts running on distributed systems, continuously monitoring the database for new jobs and notifies users via SMTP server upon job completion.

EDUCATION

Indian Institute of Technology (IIT) Mandi

Himachal Pradesh, India

Aug 2016 – Jun 2020

- B.Tech in Computer Science and Engineering, CGPA: 8.38**
- Relevant Coursework:** Advanced data structures and algorithms, Special topics in compiler design, Paradigms of programming, Software Design Patterns, Systems Practicum, Pattern Recognition, Deep Learning and Applications, Artificial Intelligence, Introduction to communicating distributed processes, Information and Database Systems,
- Teaching Assistant :** Programming and Data Structure Practicum, Communicating distributed processes, Data science lab.
- Programming Club Coordinator of the institute** for the academic year 2018 - 2019.

LANGUAGES AND TECHNOLOGIES

- Programming Languages:** C, C++, C# .net core, Objective-C, Swift, Python, Javascript, Android, Java, JavaCC/JTB.
- IDEs and frameworks:** XCode, Selenium, Postman, VSCode, MySQL, Apache Hadoop, Kafka, Spark, Nginx, Tensorflow, Keras.

PROJECTS

- Copilot for students & teachers:** A [mobile-centric solution](#) designed to support educators with an aim to enhance teaching practices, streamlining the lesson preparation process and easy access to teaching resources stored in sharepoint. It provides a comprehensive platform with personalized assistance and guidance to students for their doubts. (*Open AI, LLM, ChatGPT, Python Flask, Graph API*)
- Pictorial :** Participated in Microsoft Global Hackathon 2k21 and volunteered to lead [the project](#), making it to [top 10 selected projects](#) out of 1.5k projects across all over India. Designed a tool that utilizes text and images to generate voice and animation, enabling a simulated delivery of content to consumers. (*First-order-motion model, Google TTS, GAN model, LRS2 dataset*)
- Hosting student projects using docker :** Generated a script which was able to host new projects in docker containers. Docker swarm used for dynamic scaling of docker containers. Load tested using Apache JMeter.(*Docker, Load distribution*)
- Cricket Commentary Generation :** Generated commentary of cricket video using different networks : scene segmentation, SSD, classifiers for annotating batsman and bowler name and shot played using convLSTM. (*Python, Keras, cv2*)
- Content curation and report generation :** Developed a software to extract domain-specific and relevant content from various internet sources based on input keywords.(*Google CSE, NLP, Python Flask, Text extraction, Web Scraping, Docker*)
- Library Assistant Bot (LAB) :** Created a bot that aid library workers in arranging returned books using image processing.

AWARDS

- ACM-ICPC 2019 :** Represented IIT Mandi at the ACM ICPC India regionals 2019 securing 27th rank in kharagpur regionals.
- ACM-ICPC 2018 :** Secured 277th, 496th rank among 4401, 2946 teams in ICPC 2019, 2018 Online Round respectively.
- TopCoder - Algorithm Round (IIT Mandi) :** Secured 11th rank in IIT Mandi.
- Exodia Line Follower Event :** Represented IIT Mandi in Exodia 2k18 securing 1st rank in Line Follower Competition.
- Inter IIT Sports Meet** Represented IIT Mandi in 52nd, 53rd, 54th Inter IIT Sports Meet.