Anuj Shah

Software Engineer 2@Microsoft

Passionate about solving challenging problems by building high-scale, reliable software systems with a focus on code extensibility, maintainability and testability

Contact

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Education

International Institute of Information Technology, Bangalore
M.Tech, Computer Science
July 2018-July 2020
GPA: 3.75/4

MPSTME, Mumbai
B.Tech, Computer Engineering
July 2014-July 2020
GPA: 3.6/4

Skills

Programming Languages:- C#, Java, Python, Kotlin, C++

Backend:- .NET Core, .NET framework, Spring Boot, Hibernate

Distributed Systems:- Microservices, Message queues

Devops:- CI/CD, Azure Devops, Docker, familiar with Jenkins and ELK stack

Databases:- MySQL, NoSQL, familiar with MongoDB

Frontend:- React, Flutter, Android development

Machine Learning:- Deep Learning, ESPNet, PyTorch, Speech Recognition

Experience

Software Engineer 2, Microsoft

August 2022 - Present

- Designed and implemented a solution to **reduce mitigation time by 84%** in case of privacy incidents.
- Refactored and re-designed various components of our codebase to improve code extensibility, maintainability and testability
- Played an active role in mentoring interns, college freshers and new hires in the team

Software Engineer, Microsoft

August 2020 - July 2022

- As part of a project to migrate the backend of Microsoft ToDo to a new .NET core based SDK:-
  - Designed and implemented the telemetry module as well as key pieces of the data pipeline
  - Led the rollout and traffic cutover of our high scale backend service while **maintaining greater than 99.9% service reliability** and **no P0/P1 issues reported**
  - Implemented a lot of REST APIs like FileAttachments, MyDay, LinkedEntities, Extensions, etc in the new codebase while adhering to .NET core coding standards
  - Overall, I played a key role in this project and was heavily involved in planning & estimation, design, implementation, testing, rollout as well as partner communication

- Planned, designed and implemented a project to improve our testing infrastructure which **reduced testing time by around 50%** while also providing a more isolated test environment for each developer **increasing the dev agility and providing a more reliable test environment**

- Microsoft Graph is a RESTful API allowing third parties to access data in the Microsoft cloud. I implemented the **graph APIs for extensions and linked entities** as well as played a key role in the design and shipping of the tasks Graph APIs

Software Engineer Intern, Microsoft

May 2019 - July 2019

Interned with the Microsoft Visio team. Microsoft Visio is a powerful diagramming tool allowing users to build data rich diagrams collaboratively

- Improved Visio's programmability by implementing JavaScript APIs like addShape, updateShape, deleteShape and more.
- Developed a Visio office AddIn app in Typescript that used these newly added APIs to fetch data from AzureDevOps using its REST API and rendered them on the Visio canvas. The AddIn was developed using MVC architecture

Android Intern, Version Next Pvt Ltd

May 2016 - July 2016

Prototyped the customer app of a taxi hailing service. Designed and implemented the app end-to-end using a PHP backend with MySQL as the database. The front-end was an Android app which interacted with the backend and leveraged Google Maps APIs to power location related functionality

Research

Master's Thesis

January 2020 - May 2020

- Developed an end-to end hybrid CTC-attention multilingual ASR(automatic speech recognition) system having encoder-decoder architecture using the ESPNet framework
- The multilingual system was able to improve the WER (word error rate) by **5% and 5.4% relative** on English-French (185 hours of training data) and English-Tamil (67 hours of training data) speech respectively
- Despite seeing no code-mixed data during it's training process, the system was able to decode code mixed Tamil-English with a **CER (character error rate) of 11.5% and a WER of 35.2%** with very rare errors in detecting language switch boundaries

Publications

Shreekantha Nadig, Sumit Chakraborty, Anuj Shah, Chaitanay Sharma, V. Ramasubramanian, Sachit Rao, "Jointly learning to align and transcribe using attention-based alignment and uncertainty-to-weigh losses," 2020 International Conference on Signal Processing and Communications (SPCOM), Bangalore, India, 2020

Projects

Complaint Resolution Portal

- Built a complaint portal for our college, allowing users to sign-up, file complaints and look at the status of their complaints. Admins could look at the filed complaints and take appropriate action
- The front end of this app was built using Angular and Typescript. The backend was built with Spring Boot and MySQL using Hibernate as the ORM
- Set up a CI/CD pipeline in Jenkins that automated the build, test and deploy steps. Docker was used for running the app locally in a containerized fashion

Github Link:- https://github.com/anuj1729/complaintPortal