

# Shrey Aggarwal

Software Engineer 2 at Microsoft

✉ shrey1440@gmail.com

☎ (+91) 901-320-2489

🌐 shreyaggarwal

## Education

**Indian Institute Of Technology Roorkee**

*B.Tech. Majors in Electronics and Communication, Minors in Computer Science*

**8.773 CGPA**

2020

## Experience

**Microsoft**

*Software Engineer 2*

**Hyderabad, India**

*Jun 2020 - Present*

- Worked on Viva Learning (Learning Experience Platform that integrates with multiple LMS and 3P content providers) from its early stage development used by more than 3M monthly active users
  - Led a team of 3 developers in the successful development of an Admin Portal E2E with multiple functionalities
    - Collaborated with the PM and UX Designer to ensure the feature met the business and user requirements
    - Owned and coordinated the development process, assigning tasks and managing timelines to ensure the timely delivery of the feature
    - Worked on the entire design of the tenant admin experience from scratch. Developed responsive and accessible frontend using React on top of Fluent UI. Optimized website performance by implementing lazy loading and built pattern libraries for consistent UI design
    - Designed complete data model for Admin Portal in CosmosDB and wrote services containing business logic. Implemented GraphQL APIs in C# to query/mutate data
    - Served as Subject Matter Expert in Admin area and was the go-to person for anything Admin related
  - Collaborated with cross-functional teams and vendors to finalize API contracts and SLAs, while also gathering requirements to ensure that APIs met business needs.
  - Worked on Personalized Interest-based Recommendations E2E and integrated with Substrate(intelligence provider) to fetch personalized courses for a user
  - Built a robust React-based framework which is leveraged by several developers to create dynamic UI using JSON configuration
  - Developed a scheduled batch job using an in-house framework (Lagro) for ingesting course metadata from multiple data sources, which processes complex data containing over 100 attributes and over 10M records
  - Won back to back Hackathons
    - Integrated OneNote's note-taking capability into Viva Learning with cross-team collaboration
    - Learning in Metaverse - Integrated Viva Learning with AltspaceVR, to create immersive learning experience
- Worked on improving coding culture and standards
  - JS Bundle Size Analyzer: Built a plugin that monitors app performance and is used across business units
  - Ensured that the codebase remained compatible with the latest technology stacks, which requires upgrading frameworks to their latest version routinely
  - Implemented e2e/functional testing frameworks for both front-end and back-end projects

**Texas Instruments**

*Digital Design Engineering Intern*

**Bangalore, India**

*May 2019 - July 2019*

- Pattern matching on synthesized gate-level netlist - identified and created more valuable cells in the digital library
- Created various Python scripts from scratch to identify frequency of cells and added new cells in digital cell library
- Reduced the area of the digital design with newly created functionalities, which resulted in reduction of transistors

## Projects

**Facial Emotion Recognition**

*Guide: Dr. Debashis Ghosh | IIT Roorkee*

**Roorkee, India**

*July 2019 - March 2020*

- Aim of the project was to develop a suitable Deep Convolutional Neural Network Architecture for classifying human emotions from dynamic facial expressions in real time
- FER 2013 dataset was used for Training and Testing

**Double JPEG Compression Forensics based on CNN**

*IIT Roorkee*

**Roorkee, India**

*May, 2018 - June, 2018*

- Implemented a research paper to differentiate between single(untampered) and double(tampered) compressed jpeg images using CNN architecture
- Features used for training were extracted from histogram of DCT coefficients of images
- Training was done on UCID dataset with keeping QF1 varying and QF2 constants

## Skills

**Programming languages**

**Databases, Frameworks & Tools**

**Courses**

**Languages Known**

C#, C++, JavaScript, TypeScript

React-JS, React Native, GraphQL, Git, NodeJS,

Azure CosmosDB, Azure Key Vault, Azure Blob Storage

DBMS, Theory of Computation, Operating Systems, Statistics 110

Discrete Structures, Design and Analysis of Algorithm

English (SRW), Hindi (SRW)

## Achievements

- Secured All India Rank 1440 in JEE Advance 2016.
- Secured All India Rank 634 in JEE Mains 2016.
- Finalist in Smart India Hackathon'19 organized by Govt. of India
- Certificate of merit from CBSE for outstanding academic performance and for being among the top 0.1 percent of successful candidates in Chemistry