

# **Suraj Thotakura**

### **Software Engineer**













## **Work Experience**



Software Engineer 2022 - Present

Leading the front-end development, while playing multiple roles in a research focused team developing Al video applications **Product Development** 

- Developed and published a novel video delivery architecture, using a **React & State Machines** based custom video player to enhance customer engagement, as detailed in this **publication** (click to open link)
- Developed a programatic video generation pipeline with AWS lambda services and SQS which can generate up-to 100
  personalized videos per minute
- Developed a server side rendering service based on **AWS Lambda & Cloudfront** to deliver personalized website-metadata and sign-in-less authentication
- Optimized several backend services to make the video generation **10x faster** (compared to the MVP), bringing the generation time to 20s per video
- Developed an **LLM** based video storyboarding assistant that creates a **PPT storyboard** with the given context PDF, website link & prompt. This PPT forms the basis for the above mentioned video generation.
- Trained LoRA Stable Diffusion models to create various video assets required for our video generation pipeline
- Developed a branding personalization tool using **Stable Diffusion ControlNet**, that customizes video assets to a customer's unique branding
- · Spearheaded the end to end UI/UX design of the product
- · Recognized for exceptional contributions with multiple performance awards (click to open link)

#### Stakeholder Management

- · Conducted several team learning sessions, technical interviews and created practical assignments for senior hires
- · Collaborated with end customers, 3D artists, outbound and other cross-functional teams and stakeholders

UI/UX Designer 2020 - 2022

Worked on a WebRTC based video calling app for customer management in healthcare and field services, while also contributing as a front end developer.

- · Designed a feature rich video conference interface end to end, from UX research to prototyping
- Owned the development of UI components and maintained a Storybook library with React & Typescript

UI/UX Design Intern 2019 - 2020

Built a **design system** and a **sketch component library**, which significantly improved design consistency and feature delivery of IMI-Assist (WebRTC based video calling app)

#### Education

## Birla Institute of Technology and Science, Pilani Hyderabad - B.E. Mechanical Engineering

2016 - 2020

- Was elected as the General Secretary (2018-19), with a 70% vote majority, representing over 3500 students
- · Was unanimously elected as the Joint Secretary of Designers Anonymous, the design club of BITS
- · Spearheaded the coordination of three national fests, campus events and various student activities
- Mentored over 20 juniors in graphic design; Hosted several workshops on Photoshop and Illustrator

Sri Chaitanya Jr College, Telangana State Board - Intermediate (MPC - Science Stream)

2015 - 2016

Secured JEE Top 1%ile; Part of JEE fast-track batch, consisting of the top 20 of 300 students

#### Skills

Technical: Typescript, React, Nodejs, AWS (Lambda, SQS, Cloudfront, EC2), FFmpeg, HLS, Python

Design: Figma, Sketch, Photoshop, Illustrator, After Effects, Davinci Resolve

Other: Stable Diffusion-fine tuning, CAD, PCB design Interests: Building mechanical keyboards, Music, Tennis