Suraj Thotakura

Software Engineer

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Work Experience

Cisco (Webex)

Software Engineer   **2023 - Present**

Leading the front-end development, while playing multiple roles in a research focused team developing AI 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

Stakeholder Management

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

UI/UX Designer   **2020 - 2023**

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