

Saanvi Varma Raghavaraju

+91-9611732469 | Email | LinkedIn | Portfolio

EXPERIENCE AND PROJECTS

Frontend Developer

Nov 2025 - Present

TwinLoop HealthTech, Cardiovascular Digital Twin Platform, PhD Scholar Mentorship

BITS Hyderabad

- Building the frontend of a heart scan analysis platform featuring an interactive 3D viewer with three plane visualisation, heatmap overlays and mask rendering using Next.js, Three.js and Plotly.js.

Product Designer

Nov 2025 - Jan 2026

BITS Hyderabad and University of Toronto, UTIF Funded Research Project

BITS Hyderabad

- Worked on a voice first application designed to support traditional Durga Puja idol makers in Kumartuli, Kolkata with everyday tasks like managing finances and record keeping digitally.
- Structured the digitization of the Khata book into a clear step by step workflow, ensuring artisans who are not comfortable with text heavy interfaces can complete tasks without confusion.

UI/UX Designer

Oct 2024 - Nov 2024

Ministry of Tribal Affairs, Govt. of India, Multi Institute Collaboration

India

- Contributed to the UI and interaction design of a government funded translator app for 4 tribal languages, refining prototypes based on faculty and stakeholder feedback.
- Designed for low literacy, first time smartphone users, mapping onboarding, language selection and full information hierarchy in Figma.

UI/UX Designer

Jun 2025 - Present

CRUx, Programming and Computing Club, BITS Hyderabad

BITS Hyderabad

- Designed user flows and visual UI for Surge, a competitive coding platform used campus wide at BITS Hyderabad.
- Contributing to product design for RideShare, a campus cab pooling app, covering trip creation, ride matching and real time status flows end to end.

Product Designer, Sustainable Last Mile Delivery System

Jun 2024 - Jul 2024

Designers Anonymous, BITS Hyderabad

BITS Hyderabad

- Collaborated in a 4 member team to design the app and web UI for an EV micro depot logistics concept, translating a complex system into an intuitive product experience (India Involve Challenge, Unstop).

RESEARCH PROJECTS

Optoelectronic Characterization of Bismuth Oxysulfide Thin Film Transistors

Jan 2026 - Present

Dept. of Electrical and Electronics Engineering, BITS Hyderabad

BITS Hyderabad

- Synthesizing bismuth oxysulfide (Bi O S) thin films via hydrothermal methods and characterizing the resulting films for electrical conductivity, bandgap and optical absorption properties.
- Fabricating thin film transistor structures to evaluate gate controlled charge transport and infrared photoresponse for potential IR detection applications.

Emotion and Cognition: An Empirical Study

Jan 2025 - May 2025

Dept. of Humanities and Social Sciences, BITS Hyderabad

BITS Hyderabad

- Designed and conducted a behavioural study examining the relationship between emotion regulation and cognitive performance using standardized measures including TMT A and B, Digit Span, Tower of Hanoi, Corsi Block Tapping, Stroop Test and the Emotion Regulation Questionnaire (ERQ).
- Analysed participant data to identify how differences in emotion regulation strategies correlate with executive function, working memory capacity and cognitive flexibility.

Gravitational Wave Modelling: Course Project

Aug 2024 - Oct 2024

Dept. of Physics, BITS Hyderabad

BITS Hyderabad

- Studied the generation and propagation of gravitational waves from astrophysical sources, and worked through the mathematical framework underlying waveform prediction and detection principles used by observatories such as LIGO.

POSITIONS OF RESPONSIBILITY

Vice President

Sep 2025 - Present

ACM W BPHC Chapter, BITS Pilani, Hyderabad Campus

BITS Hyderabad

- Improving tech culture for women in computing on campus through community building, outreach and regular events.
- Structured a domain specific mentorship programme across design, development, research and competitive coding. Conducting useful technical workshops.

Content and Design Head

Jun 2025 - Present

Spectrum, The Physics Association, BITS Hyderabad

BITS Hyderabad

- Designed merchandise, social media creatives and publicity materials for club events including Solaris Surge, an escape room at ATMOS (BITS annual tech fest).

ACHIEVEMENTS AND CERTIFICATIONS

- 2nd Runner Up at TechJapan Hackathon, National Level Design Competition (July 2025). Designed the official website for Talendy Hub, placing top 3 across India.
- UX Design Fundamentals, California Institute of the Arts, Coursera (Dec 2024)
- Visual Elements of User Interface Design, California Institute of the Arts, Coursera (Oct 2024)

SKILLS

Technical: Figma, Blender, React, Next.js, HTML5, CSS3, Three.js, Plotly.js, Django, Adobe After Effects, Adobe Premiere Pro

Methods: User Research, Information Architecture, Usability Testing, Accessibility Design, Design Systems, Prototyping

EDUCATION

BITS Pilani, Hyderabad Campus

2023 - 2028

M.Sc. + B.E. in Physics + Electronics and Communication Engineering

Whitefield Global School

2022 - 2023

Class XII

VIBGYOR Group of Schools

2020 - 2021

Class X