Sai Siddartha Maram

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EDUCATION

University of California, Santa Cruz,   September 2021-September 2026
Ph.D. Student, Department of Computational Media

- Department Fellowship, NSF Funding (2021-2022)
- Graduate Research Assistatnt (2021-2022)
- UX, Game Motivation Models, Player Modelling, Qualitative Research

Thapar Institute of Engineering and Technology   June 2016 - July 2020
Bachelor of Engineering (B.E), Computer Engineering
CGPA: 9.05/10.00

INTERNSHIPS

Invento Robotics, India   June 2018 - August 2018, July 2020 - May 2021
Areas : UX, HRI, HCI, Software
Advisor: CEO Mr.Balaji Vishwanthan

- Conducted **User Interviews** with Stakeholders at various stages of a Robot Deployment pipeline.
- Conducted **Card Sorting** to develop an Information Architecture module for Robotic Fleet management portals.
- Conducted **Ethnographic Studies** to understand they synergy between Robots and humans in Hospitality and Healthcare sectors

Georgia Institute of Technology, USA (GeorgiaTech)   June 2019 - Sep 2019
Areas : UX, Software, Computer Vision, LiDAR
Advisor: Prof.Yi-Chang Tsai (GeorgiaTech)

- Performed **User Interviews** with Research stakeholders for designing tools for LiDAR data manipulation.
- Developed a platform for 2D images and 3D point cloud registration. Conducted **Moderated Usability tests** on the developed platform.

PUBLICATIONS

An Ethical Position for Using Mythology as Inspiration in Media. *CHI'22* (Position Paper in-review)

- Conducted **Focus Groups** to understand the position of Religious people on the representation of cultural elements in video games.

A Data-driven Design of AR Alternate Reality Games to Measure Resilience *HCII'22*

- Conducted **Diary Studies** to understand lifestyle, pain points of first year undergraduates in UCSC.
- Developed **personas** of first year undergraduate students.
- Developed and Designed puzzle games based on these personas to capture resilience.
- Conducted **usability tests**,**A/B** tests of AR applications developed for the puzzle games.

AstraVerse : Gaming in a Divine Dimension *CHI Play'22 (Full-Paper in-review)*

- Conducted **Participatory design** workshops to understand the creative process behind the creation of Game narratives, Game Mechanics and Game Avatars.
- Conducted **User Interviews** with cultural stakeholders to establish acceptable representation of cultural elements in video games.

- Conducted **Card Sorting** with game designers to visually classify avatars from Mythology and also a **Card Sorting** session with cultural stakeholders to organize game mechanics of mythological characters.
- Used **Thematic Analysis** to finally establish a design taxonomy which provides a balance between engagement and being culturally acceptable.

Generating Graphs Via Images: Cricket as a test-case
ACM Multimedia 2020 (workshop)
- Conceptualized treating a cricket match as a graph problem.
- Automated the generation of graphs through live broadcast. Each edge corresponds to clips of events in the cricket match
- Proposed a querying engine for the graph to extract events from the cricket match.

Images to Signals, Signals to Highlights
IEEE GLOBECOM 2020
- Proposed an innovative solution, to identify events form cricket matches.
- Automated the process of generating highlights. We achieve a wall clock time of 3 minutes to generate highlights of a cricket match, this is a benchmark in the field of highlight generation in cricket.

Neural Network and ROS based Threat Detection and Patrolling Assistance
IEEE ICACCP 2019, India (BEST PAPER)
- Established algorithms on ROS for indoor threat surveillance.
- Trained Object Detection algorithms for weapon detection.

PATENT

A Personal Safety Device and Method Thereof
Patent Application ID (India): 201911005811 (filed)
The prototype involved developing cognitive textile for the first time with computer vision capabilities for protecting women against physical abuse.

UX PROJECTS (recent)

Abric: A UX Research Study in Analyzing Pain Points During Online Fashion Shopping for Indian Women

- Performed Qualitative research in the form of User Interviews, Personas to generate exploratory insights into Online Fashion Shopping.
- Designed an Entire Concept Application addressing these pain points.

SenseIt:Game Motivation Models in Online Physical Training Classes

- Performed Qualitative research in the form of User Interviews with students and Physical Training instructors to understand current evaluative metrics in Physical training classes.
- Designed and Developed a Narrative Based game using mobile sensors to evaluate Physical Fitness.

Captain Bhor : Having Students Play with Chemistry

- Designed and Developed a Narrative Based Action game for students to learn Chemistry Concepts