

curriculum vitae of  
**Shivam Shukla**

HUMAN-COMPUTER INTERACTION · EDUCATION · SPACE EXPLORATION  
ART · PSYCHOLOGICAL WELLBEING · SERIOUS GAMES

✉ sshukla3@ucsc.edu       Google Scholar

## SUMMARY

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I am a first year Ph.D. student in Computational Media at the University of California, Santa Cruz. At the core of my research is a big question: **How can we create technologies that better serve humanity?** This curiosity, led me from core electrical engineering to human-centered design. My research interests are very diverse, ranging from mental-healthcare and human-AI interaction to serious games, philosophy, art, education, and spaceflight research. The diversity to tackle range of socio-technical problems is one of my greatest strengths. I am driven less by the desire to confine myself to a single research domain and more by the curiosity to understand and address different kinds of socio-technical problems. What connects these seemingly different directions is a shared set of values: **people, possibilities, perspectives, and purpose.**

## EDUCATION

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| <b>Ph.D. in Computational Media</b><br>UNIVERSITY OF CALIFORNIA, SANTA CRUZ<br>Advisor: Dr. Magy Seif El-Nasr, Game User Interaction and Intelligence (GUII) Lab.                                    | Sep. 2026 – Present<br>Santa Cruz, CA   |
| <b>M.S. in Human-Computer Interaction</b><br>UNIVERSITY OF CALIFORNIA, SANTA CRUZ<br>GPA: 4.0/4.0. Departmental fellowship awarded for good academic standing.                                       | Sep. 2023 – Dec. 2024<br>Santa Cruz, CA |
| <b>B.E. in Electrical and Electronics Engineering</b><br>SRM INSTITUTE OF SCIENCE AND TECHNOLOGY<br>In top 3% nationally, Graduate Aptitude Test in Electrical Engineering, conducted by IIT BOMBAY. | May 2016 – Jun. 2020<br>Chennai, India  |

## PUBLICATIONS

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### ACCEPTED PEER-REVIEWED CONFERENCE PAPERS

1. M. Escarce Junior, M. Johns, **S. Shukla**, D. Lee, M. Hendawy, et al. **Talking Wildfire: How Discourse in Serious Games Shapes Collaborative Learning and Preparedness.** In *Proceedings of the International Conference on the Foundations of Digital Games (FDG '26)*, 2026. [View Paper]
2. **S. Shukla**, S. Sisodiya, S. Gaur, K. Jiang, J. Zheng. **Designing for Mars: Human-Centered AI, Resilience, and the Future of Crew-Autonomous Space Mission Planning.** In *Proceedings of the International Conference on the Space Human-Computer Interaction (SpaceCHI'26)*, Springer Nature, 2026. [Under print]
3. M. Escarce Junior, M. Johns, **S. Shukla**, D. Lee, Y. Lu, et al. **Fostering Collaborative Knowledge-Building and Resilience Through Player Discourse in Serious Games for Wildfire Preparedness.** In *Proceedings of the International Joint Conference on Serious Games (JCSG 2025)*, Springer Nature, 2025. [View Paper]
4. S. Sisodiya, S. Gotherwal, **S. Shukla**, E. Carstensdottir. **Exploring Indian International Students' Experiences with LLMs.** In *Proceedings of the Human-Computer Interaction International Conference, (HCII'26)*, Springer Nature, 2026. [Under Print]
5. **S. Shukla**, E. Chen, M. Roshanaei, M. Seif El-Nasr. **Relationship-Centered Care: Relatedness and Responsible Design for Human Connections in Mental-Health Care.** *Position paper at the CHI 2026 Workshop: Toward Relationship-Centered Care with AI.* [View Paper][Lightly Reviewed]

### UNDER-REVIEW PAPERS

6. **S. Shukla**, J. Kim, S. Gaur, M. Roshanaei, M. Seif El-Nasr. **RELATE: An Evaluation Framework for measuring Relational Orientation of Large Language Models.** [View Pre-print]

## RESEARCH EXPERIENCE

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### Research Scientist

GAME USER INTERACTION AND INTELLIGENCE LAB, UCSC

Jul. 2025 – Sep. 2026

Advisor: Dr. Magy Seif El-Nasr

- Conducted participatory research for a **\$2.5M NSF-funded wildfire resilience project**, translating community perspectives into structured data to inform learning and wildfire preparedness. Research contributed to two conference papers at JCSG 2025 and FDG 2026.
- Represented the lab at community-led meetings in **Sunol and Alameda County**, presenting research findings and discussing project impact with wildfire-affected communities, researchers, California fire officials, and NSF representatives.
- Conducted think-aloud playtesting and usability studies for a **\$1.5M NSF-funded educational game project**, informing iterative game design for enhancing self-regulation in STEM learning, contributing to a paper accepted at SIGCSE 2026.
- Authored a **CHI 2026 workshop position paper** exploring relationship-centered approach in human–AI interactions within mental-healthcare.

### Independent Researcher

SALT LAB, STANFORD UNIVERSITY

Jan. 2025 – Mar. 2025

Advisor: Dr. Diyi Yang

- Analyzed interaction breakdowns in **CoGym**, an open-source platform for evaluating human-agent collaboration, identifying gaps in responsiveness, initiative, and user-experience to inform the suitable design choices for user-AI interaction.
- Developed multiple low- to high-fidelity prototypes and interaction designs for the project **COCO**, exploring how proactive AI agents can anticipate user needs, communicate assistance, and support intuitive human–AI collaboration.

### HCI Researcher (Apprenticeship)

NASA AMES RESEARCH CENTER

Apr. 2024 – Dec. 2024

Mentors: Jimin Zheng and Katherine Jiang

- Led the research phase of a capstone team developing an AI-assisted toolkit for **NASA's Playbook space mission planning tool**, focusing on crew decision-making and contingency replanning.
- Conducted 13 in-depth interviews, 12 usability sessions, and 4 co-design workshops with mission planners, analogous participants, and subject matter experts to understand planning workflows, identify user needs, and explore opportunities for human–AI collaboration in decision-making.
- Took an iterative approach and worked with NASA teams across four design stages, building insights from the multiple feedbacks to map the user needs into iterative prototypes.

### Graduate Research Assistant

INTERACTION DYNAMICS LAB, UCSC

Dec. 2023 – Apr. 2024

Advisor: Dr. Elin Carstensdottir

- Led usability research for **MIMIC**, a social simulation platform for robot training, in collaboration with **Honda Research Institute**, overseeing study design, participant recruitment, and data collection across 10 user sessions.
- Used qualitative and quantitative analysis to identify usability gaps, which led to the development of six new features that improved the data playback experience of **MIMIC**.

### Undergraduate Researcher

DEPARTMENT OF EEE, SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

Dec. 2018 – Jun. 2019

Advisor: Dr. P. Suresh

- Developed and evaluated a modified Particle Swarm Optimization approach to the Economic Load Dispatch problem, improving cost optimization under operational constraints. Published and presented in **IJRTE (2019)**.

## INDUSTRY EXPERIENCE

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### UX Researcher and Product Designer

IIT ASHRAM

Jul. 2020 – Jun. 2023

Vadodara, India

- Led end-to-end UX research and design for an **EdTech platform** serving rural communities, grounded in ethnographic field studies, and led a cross-functional team of five with two partner organizations.
- Ran multi-phase mixed-methods research that increased stakeholder buy-in by **70%**, brought the launch forward by six months, and contributed to a **45%** rise in user engagement.
- Built workflows for capturing and analyzing student learning data, laying the groundwork for AI-based personalization.

### Electrical Engineering Intern

SCHNEIDER ELECTRIC

Jun. 2018 – Sep. 2018

Vadodara, India

- Simulated and analyzed single-phase and three-phase transformer designs (regulation, losses, efficiency, thermal loading) and supported design validation against performance targets.

## PRESENTATIONS AND TALKS

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| <b>SpaceCHI '26</b> , paper presentation, NASA Ames Research Center, California. <i>Designing for Mars: Human-Centered AI, Resilience, and the Future of Crew-Autonomous Space Mission Planning</i> | Sep. 2026 |
| <b>FDG '26</b> , paper presentation, Copenhagen, Denmark. <i>Talking Wildfire: How Discourse in Serious Games Shapes Collaborative Learning and Preparedness.</i>                                   | Aug. 2026 |
| <b>CHI 2026</b> , poster presentation, Barcelona, Spain. <i>Relationship-Centered Care: Relatedness and Responsible Design for Human Connections in Mental-Health Care.</i>                         | Apr. 2026 |
| <b>NASA Ames Research Center</b> , research presentation, virtual. <i>The Future of Planning: AI-Integrated Planning Decision Support System</i>                                                    | Dec. 2024 |
| <b>Human-Centered AI Group, UCSC</b> , invited talk. <i>How a human-centered AI-driven approach can shape the future of space technologies.</i>                                                     | Oct. 2024 |
| <b>NASA Ames Research Center</b> , research presentation, virtual. <i>Design recommendations for AI-supported decision making in space mission planning and execution.</i>                          | Jun. 2024 |
| <b>National Conference on Power, Circuit and Sustainable Energy Systems</b> , research presentation. <i>Modified Particle Swarm Optimization for an optimal solution to a power system unit.</i>    | Jul. 2019 |

## TEACHING EXPERIENCE

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|-------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Teaching Assistant, THEA 80P: Pixar: Story Matters</b><br>DEPARTMENT OF PERFORMANCE, PLAY & DESIGN, UCSC | Fall 2024<br><i>Instructor: Noah Luce</i>      |
| <b>Teaching Assistant, THEA 80N: Walt Disney</b><br>DEPARTMENT OF PERFORMANCE, PLAY & DESIGN, UCSC          | Spring 2024<br><i>Instructor: Kinan Valdez</i> |

## PROJECTS AND CREATIVE WORK

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| <b>Immersive Artist, The Sphinxes</b><br>SPHINXGATE                                                                                                                                                                                                                                               | Apr. 2025<br><i>Black Rock Desert, Nevada</i> |
| <ul style="list-style-type: none"><li>Worked on designing an AI-powered interactive art work for the <b>Burning Man 2026</b>, in which participants talked with a semi-scripted voice agent that adapted to emotion and context to generate real-time video projections. [View Project]</li></ul> |                                               |
| <b>UX Engineer, GROOT</b><br>REBOOT THE EARTH HACKATHON, UCSC                                                                                                                                                                                                                                     | Nov. 2025<br><i>Santa Cruz, CA</i>            |
| <ul style="list-style-type: none"><li>Co-designed and prototyped a web dashboard that brings together value-at-risk indicators, incident history, and real-time wildfire data for firefighters and local agencies.</li></ul>                                                                      |                                               |

## PROFESSIONAL SERVICE

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| <b>Reviewer, IEEE Transactions on Games Journal</b>          | 2026                  |
| <b>Reviewer, ACM CUI Papers Track</b>                        | 2026                  |
| <b>Reviewer, FDG Papers Track</b>                            | 2026                  |
| <b>Reviewer, CSCW Posters Track</b>                          | 2026                  |
| <b>Mentor, Women in Science and Engineering (WiSE), UCSC</b> | Fall 2023 – Fall 2024 |

## REFERENCES

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|----------------------------------------------------------------------------------------------|-----------------------|
| <b>Dr. Magy Seif El-Nasr</b><br>UC PRESIDENTIAL CHAIR, PROFESSOR OF COMPUTATIONAL MEDIA BSOE | mseifeln@ucsc.edu     |
| <b>Dr. Mahnaz Roshanaei</b><br>COMPUTATIONAL SOCIAL SCIENTIST, STANFORD UNIVERSITY           | mroshana@stanford.edu |
| <b>Jimin Zheng</b><br>RESEARCH AND DESIGN LEAD, NASA AMES RESEARCH CENTER                    | jimin.zheng@nasa.gov  |