

TANMAYEE PEMMARAJU

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Education

Indiana University, Bloomington, Luddy School of Informatics

Master of Science in Human-Computer Interaction Design, GPA: 3.96

Indiana, USA

May 2025

BVRIT HYDERABAD College of Engineering for Women

Bachelor of Technology in Computer Science Engineering, GPA: 3.4

Hyderabad, India

May 2023

Projects

Nandi, an emotional support robot ([Paper link](#))

Academic Project, Indiana University, December 2024

- Designed and developed a 3D printed non-invasive emotional support robot using Python and Arduino's inbuilt language with touch sensors, delivering audio and vibration feedback to simulate comforting interactions
- Conducted iterative usability testing with three rounds of design feedback, achieving a 30% improvement in user satisfaction
- **Concepts and tools:** 3D modeling, physical prototyping, usability testing, product design, electronics design, Arduino IDE, Python, Fusion360

Digital innovation for small scale agriculture ([Case study link](#))

Guided Project, Digital Civics Exchange, Newcastle University, May 2024

- Conducted thematic analysis of interviews in a team of five researchers with six small-scale sustainable farmers in Newcastle, UK, uncovering insights into their practices, biases against new technologies, and interactions with innovations
- Created design fiction scenario and engineered provocative prototype, the Landlog Apron, to engage farmers in critical reflection on technology's impact on sustainable farming
- **Concepts and tools:** Physical prototyping (embroidery), design fictions, product design, provocative prototyping, qualitative analysis (thematic content analysis), Figma, Adobe Illustrator

Reorganizing benefit.design ([Case study link](#))

Academic/Industry-based Project, April 2024

- Led UX strategy and organizational redesign by performing product analytics, SWOT analysis, stakeholder mapping, and survey data analysis at benefit.design, estimating 40% improvement in system efficiency
- Streamlined workflows, roles for an estimated 30% rise in volunteer retention and a 25% rise in stakeholder satisfaction
- **Concepts and tools:** Product analytics, SWOT analysis, stakeholder mapping, survey analysis, competitive analysis, data visualization, UX strategy, information architecture, Figma

Experience

Indiana University, Luddy School of Informatics

Associate Instructor, Informatics Capstone Course

Bloomington, IN

Aug 2023 - Present

- Facilitated development of end-to-end information systems for six teams, teaching agile workflows and enhancing skillsets for successful project completions.

Associate Instructor, Introduction to HCI (for MS students)

Aug – Dec 2024

- Mentored 30 students in developing small scale projects based in the field of human computer interaction
- Offered guidance and encouraged problem-solving to improve skills and ensure successful outcomes

Associate Instructor, Interaction Design Methods (for MS students)

Jan 2025 - Present

- Mentoring 60 students guiding them through projects applying interaction design techniques
- Providing constructive feedback on project progress, ensuring alignment with design principles and methodologies

Skills and Toolkits

Core Competencies: Product Design, Product Management, Accessibility Design, Qualitative & Quantitative Research, Experience Design, Interaction Design, Prototyping, Data Analysis, User Research Methods, Collaboration, Cross-functional Teamwork, Information Architecture, Visual Communication, Design Thinking, UX Strategy, Heuristic Evaluation, Testing Strategies

Programming: Python, C, HTML, CSS, SQL, Arduino, JavaScript

Relevant Coursework: Experience Design, Interaction Design Methods, Human Robot Interaction, Content Analysis for the Web, Advanced Prototyping

Certifications: Visual Design: The Ultimate Guide