

Rukmini Bose

Senior UX Designer @ KBR, National Security

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EXPERIENCE

• Senior UX Designer @ KBR, National Security (October 2024 - Present) :

- Led the design for an Assessment Management System for the U.S. Department of Defense and U.S. Space Force—focused on designing a central system for ingesting and displaying national security data and modeling threat scenarios, enhancing decision-making capabilities of military personnel in critical defense contexts.
- Successfully designed and delivered MVP1 for this application in December—within 2 months to meet Congress deadlines, despite the challenge of relying solely on documentation of legacy systems.
- Part of the team's leadership and worked in an Agile team, collaborating with cross-functional teams including developers, product managers, and military defense specialists, to define project scopes and align design objectives with technical and operational requirements.
- Created innovative strategies to conduct user interviews with confidential military stakeholders who are not directly accessible, to create user workflows, identify pain points in the legacy systems, and gather user feedback—enabling the development of user-centered features.
- Developed low and high-fidelity Figma prototypes to visualize core functionalities and user flows, incorporating early feedback from military stakeholders and iterating designs to ensure alignment with critical defense requirements.
- Collaborated with UX designers across other projects to develop a comprehensive design system, maintaining consistent design standards across applications.

• UX Designer and UI Developer @ KBR, NASA Ames Research Center (December 2021 - October 2024) :

- *Lead Designer and Developer* for **DIY Mission Control**—a web application with the ability to build customizable displays for the public viewing of the NASA VIPER mission in real-time.
 - * Led design thinking sessions, conducted user research and testing, and drove the development of the information architecture and designs—establishing the design foundation for the project and improving user task efficiency.
 - * Created mobile and desktop wireframes using Figma and produced final user experiences with modern UI styles.
 - * Collaborated with the developers to develop multiple application prototypes—using Vue.js and HTML/CSS—ensuring optimal user experience through rigorous testing and iteration.
 - * Developed complex 3D models and animations using Blender, and created 2D graphics with Figma and Photoshop.
 - * Rigorously tested and gathered user feedback to create user-centered design improvements.
 - * Collaborated with cross-functional teams (technology, product, and business stakeholders) to identify and translate customer and business needs into engaging, intuitive design solutions.
- *UX Designer and Developer* of **Open MCT** for the **NASA VIPER mission**, an open-source mission control software central to multiple NASA missions like VIPER— a mission taking a rover to the South Pole of the moon.
 - * Contributed to the end-to-end product design by collaborating with teams to understand user needs, defining visual designs, and developing user flows, journey maps, and interaction models, ensuring customer's needs were prioritized.
 - * Collaborated with VIPER subject-matter experts to create complex mission control displays to monitor and display real-time mission telemetry for mission leads, improving their overall task efficiency during VIPER up to 50%.
 - * Took over the responsibilities for improving Open MCT's mobile user experience through a mobile redesign, incorporating responsive design and mobile gestures.
 - * Fully designed and developed a new theme plugin called Darkmatter, expanding visual options for Open MCT.
 - * Primary author of the *Open MCT User's Guide*: a per-release document that details to VIPER, other NASA missions, and the public, on composing custom views, utilizing real-time data, and navigating the software—streamlining the learning curve for new users.
 - * Conducted user research, to create wireframes and mockups for Open MCT features.
 - * Refined Open MCT's design and code, establishing Section 508 and WCAG AA accessibility compliance for VIPER.
 - * Developed automated end-to-end visual tests with the Playwright testing platform, and resolved issues for new and legacy features—improving codebase stability and ensuring a consistent user interface quality.
- Assistant to designs for **Visual Environment for Remote Virtual Exploration (VERVE)**— a 3D visualization and animation system used for science missions, such as VIPER.
- *One KBR Award Recipient* for exemplary leadership and quality work in the UI/UX development for VIPER.

- **Web & Digital Graphics Specialist @ Genomics Institute** (*September 2021 - December 2021*) : Designed and created content for UC Santa Cruz's Genomics Institute using WordPress and other management systems.
- **User Experience Design Intern @ Cisco** (*June 2021 - September 2021*):
 - **AI Sensor:** Worked closely with Cisco's Director of Engineering on a multi-modal sensor data analysis to extract intelligence and insights, then to research and create mockups for different use cases for four Tier 1 partners.
 - **Innovare:** Designed the Cisco Innovation Lab's UI Design Library by conducting interviews and researching to build a UI foundation for the developers, then designed the library's website and components (e.g. text, color, styles).
- **Data Analyst & Computer Programmer @ UCSC** (*December 2020 - December 2021*) : Worked on data-driven projects, collaborating across teams to gather and analyze linguistic data, ultimately contributing to a publication.

TECHNICAL SKILLS AND KNOWLEDGE

- **Languages:** Vue.js, HTML/CSS, Javascript, Java, C, Python, Node.js, React, R, WebGL
- **Applications:** Figma, Blender, Playwright, Adobe Creative Suite, Photoshop, WordPress, InVision, Qualtrics, SPSS

EDUCATION

- **University of California Santa Cruz** Santa Cruz, CA
 - *B.S., Computer Science — B.S., Cognitive Science — GPA: 3.7 — Dean's Honor Scholar* *Sep. 2018 – Dec. 2021*