# Rukmini Bose

Senior UX Designer @ KBR, National Security https://www.rukminibose.com/https://github.com/rukmini-bose

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#### EXPERIENCE

## • Senior UX Designer @ KBR, U.S. Space Force (October 2024 - Present):

- Part of the project leadership team for a **classified central SaaS platform** for the Space Systems Command (SSC), U.S. Space Force. Designed data ingestion, visualization, and modeling/simulation features for critical national security use cases.
- Working closely with product managers and key stakeholders to define project scope, provide critical design insights, and strategically Agile MVPs.
- Led the end-to-end design of core features, with rapid iteration on Figma prototypes informed by stakeholder feedback, operational needs and to align with mission-critical defense requirements.
- Ensured clear communication between the team and our customers, maintaining a strong, human-centered approach to problem-solving and stakeholder engagement.
- Developed innovative strategies for conducting user research with confidential military operators, gathering key insights to improve workflows, identify pain points, and drive user-centered solutions.
- Conducted onsite visits to U.S. Space Force bases, working in classified environments to conduct firsthand UX
  research. Engaged directly with stakeholders under secure conditions to review classified materials, ensuring that
  design decisions align with mission and user needs.
- Collaborated with designers across other projects to establish a comprehensive design system, and hold design workshops—ensuring consistency and scalability across all Space CAMP applications.
- Successfully delivered MVP1 in Dec. 2024, within two months of project kickoff to meet Congress deadlines—overcoming challenges related to legacy system constraints, limited access to classified material and direct users. Approaching MVP4 deadline in September.
- Regularly delivered demos to cross-functional groups and leadership—earning strong feedback on clarity, UX strategy, and communication skills.

### • 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.
  - \* Successfully led the design efforts for the project and launched the first version of the application to the public in July 2024, marking a key milestone in the project's and the VIPER Mission's development.
  - \* Led design thinking sessions, conducted user research and testing, and drove the development of the information architecture and designs— establishing the full designs and technical foundation.
  - \* 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 an optimal user experience through rigorous testing and iteration.
  - \* Developed complex 3D models and animations using Blender, and created 2D graphics with Figma and Photoshop.
  - \* 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 various teams to research and understand user needs, defining visual designs, and developing user flows, journey maps, and high and low fidelity mocks up Figmaensuring 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 complete mobile redesign, incorporating responsive design and user-researched 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.

- \* 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 Designer for Visual Environment for Remote Virtual Exploration (VERVE)—a 3D visualization and animation system used for science missions, such as VIPER.
- 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).

# AWARDS

**KBR One Award** (MAR 2024) for exemplary leadership and work in the UI/UX development for VIPER at NASA **KBR One Award** (APR 2025) for UX design and leadership on U.S. Space Force applications

## 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

 $^{\prime}$  B.S., Computer Science - B.S., Cognitive Science - GPA: 3.7 - Dean's Honor Scholar

Sep. 2018 - Dec. 2021