BHOOMIKA BANGALORE RAJEEVA

(206)-234-1555 | bhoomi.rajeeva@gmail.com | LinkedIn: linkedin.com/in/bhoomika-b-r | Seattle (open to relocation)

EXPERIENCE

Sound Transit | UX Researcher   **Mar 2024 - Ongoing**
End-to-end generative research for virtual Unified Control Center (UCC) project

- Led research plan, recruitment to in-person sessions ensuring data privacy and IRB-aligned protocols in high-stakes environments.
- Led 300+ hours of human subject research using **ethnography, shadowing, 1:1 interviews** with team of 3 researcher across 6 control centers to **uncovered 8+ workflow breakdowns** during train control due to high cognitive load
- Synthesized findings into **23 system design recommendations** to reduce cognitive load for 12+ dispatchers, using journey mapping and communication flow diagrams
- Presented findings to leadership, **securing $5M for Phase 2** by proposing a virtual control center and aligning UX research with cross-functional teams and business goals

Dvizira | Lead UX Researcher   **Oct 2022 to Oct 2023**
Human factors research on wearable robotics gloves for tactical communication within incident response systems

- Improved gesture recognition accuracy by **30%** by calibrating and testing wearable glove motion/haptic sensors across **6 usability sessions** with **10+ field participants**
- Reduced communication error rates in simulated tactical environments by conducting **3 lab studies** and **2 field-based cognitive walkthroughs**, identifying 4 high-severity usability issues
- Delivered **5 hardware design recommendations** by synthesizing findings into debrief reports, accelerating sensor firmware updates by **2 weeks** in collaboration with cross-functional engineers
- Designed a telemetry dashboard to visualize **real-time movement speed and geolocation**; created **7 high-fidelity wireframes** in Figma based on user feedback
- Contributed to **securing $400K in seed funding** by aligning research insights with investor-facing product strategy

Design Researcher | Kukke Architects   **Sep 2018 to Feb 2021**
Generative spatial design research for public and residential space designs

- Collaborated with an 11-member cross-functional team and 3 local communities to conducted spatial design research using participatory methods and co-develop spatial strategies
- Applied principles of **perception and spatial semiotics** to model rhythm, hierarchy, and human-scale navigation for the public building projects and 5+ residential housing projects.
- Created immersive 3D models of urban environments (12+ structures) to visualize sensory flow, navigation logic, and spatial rhythm contributing to concept evaluation and AR/VR prototyping relevance.

PROJECTS

Seattle Children's Hospital | UX Researcher   **Jan 2025 - Ongoing**
Led generative research for Seattle Children's Photo Narrative Tool (PNT) design for children with SNI

- Led UX research strategy for PNT tool, combining **diary studies and contextual inquiry** to identify critical needs of families with complex medical requirements
- Designed and executed a 4-day longitudinal study with caregivers (n=4), employing strategic interview protocols and daily prompts, achieving 85% engagement and uncovering key barriers in clinician-patient interactions
- Synthesized research findings through **systematic coding and journey mapping**, delivering 10 evidence-based design recommendations to enhance MyChart integration for improved humanistic care delivery.

Duo - Cisco | Usability Researcher   **Jan 2024 to Mar 2024**
Usability research for Duo's 2FA authentication system, improved user's onboarding process

- Designed multi-phase survey research including screener (n=23) and post-task questionnaires, achieving 74% qualification rate and **enhanced informed recruitment process.**
- Developed experimental design for usability testing with 3 controlled test conditions, resulting in recommendation that projected a 30% improvement in task completion rates and a 25% reduction in user error rates
- Performed **statistical analysis of user behavior patterns** across authentication methods, identifying correlations that drove UI changes resulting in 40% faster user adoption of 2FA features

ADDITIONAL RESEARCH INVOLVEMENTS

Graduate Research Assistant (CoSSaR): Led organizational-level research for city wide virtual coordination center project and Sound Transit's Unified Control Center, focusing on situational awareness and decision support system.
AI Videography Tools Research: Conducted sentiment analysis on 15 interviews using Python and thematic coding (90% inter-rater reliability), shaping AI tool development strategy.
Human-Robot Interaction (FLEXI): Ran in-person usability tests on EMAR speech-practice robot, evaluating interaction design and user engagement for educational applications.

EDUCATION

Master of Human Centered Design Engineering (HCI) | June 2025   *University of Washington, Seattle*
Course: Qualitative Research, Usability Study, Computational Programming, Human factor research

SKILLS

Research methods: Usability Testing (remote & in-person) · Contextual Inquiry · Field Studies · Semi-Structured Interviews · Cognitive Walkthroughs · Diary Studies · Eye-Tracking · Surveys (screener, pre/post-task) · A/B Testing · Experimental Research · Task-Based Testing · Participatory Design · Think-Aloud Protocol
Data Analysis & Synthesis: Thematic Coding · Affinity Mapping · Behavioral Pattern Analysis · Sentiment Analysis · Statistical Analysis (t-tests, correlations) · Heuristic Evaluation · Mixed-Methods Synthesis · Journey Mapping · User Personas · Service Blueprints · Jobs-To-Be-Done (JTBD) · Design Sprints · UX Metrics & Benchmarking · Research Repositories · Research Ops · Project Roadmapping
Tools & Platforms: Qualtrics, Atlas.ti, NVivo, SurveyMonkey, Usertesting.com, Figma, Framer, Miro, Python (basic), Zoom, P5.js