VIBHA SUNEEL NAVALE

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EDUCATION

University of Illinois Chicago, IL — Jan 2024 – Expected Dec 2025
Master of Science in Computer Science — GPA: 4.00

RNS Institute of Technology, Bengaluru, India — 2017 – 2021
Bachelor of Engineering in Information Science — GPA: 9.08

SKILLS

Research Methods	Mixed Methods Studies, Semi-Structured Interviews, Surveys, Observational Studies
Analysis & Synthesis	Usability Testing, Thematic Analysis, Figma Prototyping
Technical Tools	React, Next.js, Node.js, REST APIs, PostgreSQL, AWS, Docker, Git, Supabase, Postman

EXPERIENCE

Software Engineer — Aug 2021 – Dec 2023
Cimpress — *Bengaluru, India / Remote*

- Delivered logistics features that saved up to **$100K annually** by building containerized **Node.js/Express** services and accessible **React/Angular** interfaces informed by customer feedback and support tickets.
- Partnered with product managers and designers to translate pain points into measurable API and UI requirements, documenting acceptance criteria and edge cases for each release.
- Improved user experience by adding targeted caching for high-traffic endpoints, reducing API latency by **40%** (900 ms to 530 ms) and lowering third-party dependency costs.
- Worked with operations, support, and finance to migrate observability from **Sumo Logic** to **New Relic**, cutting monitoring expenses by **75%** and consolidating dashboards for faster incident triage.

Graduate Teaching Assistant, Software Engineering — Aug 2024 – Present
University of Illinois Chicago — *Chicago, IL / On-site*

- Guide student teams through semester projects, steering planning, iteration reviews, and user-focused requirements.
- Facilitate coding demos and office hours that connect architecture decisions to end-user impact, helping teams unblock features and maintain usability goals.
- Provide individualized feedback on user stories, technical designs, and demos to strengthen communication between research, design, and engineering roles.

PROJECTS

Tech Support for Older Adults – MS Project — Jan 2025 – May 2025
Conducted a mixed-methods study with five older adults, combining pre/post surveys, observational screen recordings, playback logs, and semi-structured interviews to compare video vs. written tech support. Synthesized findings into requirements and success metrics for an **automated guide builder** that transforms tutorial videos into step-by-step image flows using **OpenCV** and **FastAPI**.
Technologies: Mixed Methods Research, OpenCV, FastAPI, OS-ATLAS, React

MindBridge — Sep 2024 – Dec 2024
Led **user interviews** and **usability testing** for a mental-health intake platform, synthesizing insights into prioritized requirements and accessibility heuristics. Built a working **React** prototype that captured the proposed flows and provided the course team with implementation notes for further iteration.
Technologies: HCI Research, Interview Synthesis, Figma, React

Find Your Roof — Jan 2024 – Apr 2024
Collaborated with classmates to design and implement a **React/Next.js/Supabase** portal that curates shelters, rentals, and job resources for unhoused Chicago residents. Led accessibility checks, navigation structure reviews, and content updates to keep the experience grounded in user needs gathered from community briefings.
Technologies: React, Next.js, Supabase, TypeScript, Tailwind CSS

PUBLICATIONS

How BYOD Sessions Support Ongoing Digital Engagement in Older Adults — Apr 2025
(HCI, Interaction Analysis, Submitted to ACM ASSETS 2025)
Conducted interaction analysis of **13 bring-your-own-device sessions** with **83 older adults**, identifying spatial formations and assistance types. Documented evolving motivations through peer interactions and privacy constraints. Co-authored a paper presenting **design considerations** for technology support tools for independent digital engagement and social support.