VIBHA SUNEEL NAVALE

+1 (312) 459-9536 ⋄ Chicago, IL

vibha.navale@outlook.com ⋄ www.linkedin.com/in/vibha-navale ⋄ github.com/VibhaNavale ⋄ vibha-navale.netlify.app

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

TECHNICAL SKILLS

Frameworks & Technologies	React, Angular, Node.js, AWS, REST API, Express, SumoLogic, New Relic
Languages & UX Research	JavaScript/TypeScript, Java, Python, PostgreSQL, Mixed Methods Research
Tools	Git, Docker, Jira, Postman, DBeaver, Supabase, VS and VS Code, Jupyter Notebook

EXPERIENCE

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

- Developed and implemented various **REST containerized microservices** using **Node.js** and **Express** for a logistics product, optimizing shipping processes and saving up to **$100K annually**. Built front-end components with **React** and **Angular**, and managed databases with **PostgreSQL**.
- Enhanced **API performance** by implementing caching mechanisms for frequently accessed data, reducing response time by **40%** (from **900 ms** to **530 ms**) and lowering costs associated with third-party API calls.
- Utilized **AWS services** (**ECS**, **EC2**, **Lambda**, **API Gateway**, **Secrets Manager**) and deployed infrastructure using **CloudFormation** to maintain infrastructure as code. Enhanced security with **WAF**, automated secrets rotation, and secure **S3** access.
- Migrated logs from **Sumo Logic** to **New Relic**, cutting logging and monitoring costs by **75%** and consolidating monitoring capabilities into a single platform.

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

- Grade **Software Engineering** assignments, projects, and exams, providing timely feedback on implementation quality, testing depth, and documentation.
- Facilitate **coding project demos**, guiding students through key technical concepts and development processes.
- Support students individually and in groups with **coding**, project requirements, and software engineering principles, including Git branching, CI checks, and code review etiquette.

PROJECTS

Tech Support for Older Adults – MS Project   Jan 2025 – May 2025
Led a mixed-methods research study on older adults' preferences for video-based tech support vs. traditional methods, and developed an **automated system** that generates **image-based step-by-step guides** by using a foundational action model and extracting UI elements from YouTube tutorials using OpenCV. The tool improves accessibility by converting video content into a more user-friendly format.
Technologies: HCI, UX Research, OS-ATLAS, OpenCV, React, FastAPI

MindBridge   Sep 2024 – Dec 2024
Led **user interviews** and **usability testing** to inform the design of a secure HCI system for streamlining patient histories in mental healthcare. Developed **high-fidelity Figma prototypes** focused on accessibility and workflow efficiency.
Technologies: HCI, Figma, React

Find Your Roof   Jan 2024 – Apr 2024
Built a **full-stack web application** using **React**, **Next.js**, and **Supabase** to help unhoused individuals in Chicago find shelters, affordable rentals, and job opportunities. Focused on accessibility and user needs to support real-world impact.
Technologies: React, Next.js, Supabase, TypeScript, Tailwind CSS

PAPER 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.