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 – 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

Languages & Databases	JavaScript/TypeScript, Java, Python, SQL, PostgreSQL
Frontend & Backend	React, Next.js, AngularJS, Node.js, Express, REST APIs
Cloud, DevOps & Tools	AWS, Docker, Git, CI/CD, Jira, Supabase, Postman, DBeaver, New Relic, Sumo Logic

EXPERIENCE

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

- Developed and implemented **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 via **CloudFormation** to maintain IaC. 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.
- Set up **GitLab Runner** and **CI/CD pipelines** and migrated services to **ECS**, improving deployment efficiency and reducing operational overhead.

Graduate Teaching Assistant — Aug 2024 – Dec 2025
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 (HCI, OS-ATLAS, OpenCV, React, FastAPI) — Jan – May 2025

- Led **mixed-methods research** to identify accessibility gaps in **video-based tech support** for older adults.
- Developed an **automated system** using **OpenCV** and a **Foundational Action Model** to convert tutorial videos into **step-by-step image guides** with a **React** frontend and **FastAPI** backend.

LLM Training & Deployment on AWS (Scala, Hadoop, Spark, EC2, EMR, Akka HTTP, Ollama) — Sep – Nov 2024

- Built **end-to-end LLM pipelines** on **AWS** using **Hadoop** for tokenization and **Spark** for distributed model training.
- Developed and deployed **REST APIs** with **Akka HTTP** and **Docker** on **EC2/Lambda**, enabling scalable inference with **Ollama**.

Find Your Roof (React, Next.js, Supabase, TypeScript, Tailwind CSS) — Jan – Apr 2024

- Built a **full-stack web application** aggregating housing, shelter, and job resources for unhoused residents in Chicago.
- Improved accessibility and navigation, integrating **Supabase** backend with **Next.js** frontend for responsive, scalable performance.

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 BYOD sessions** with **83 older adults**, identifying assistance types, spatial formations, and privacy-related behaviors.
- Co-authored a paper synthesizing insights on peer support and motivation, informing design considerations for tools that support independent digital engagement.