

AKASH KHISTE

Senior Frontend Engineer | React, TypeScript, Data Visualization, Scalable UI Systems

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PROFESSIONAL EXPERIENCE

Senior Software Engineer | *Walmart Inc., Dallas, TX, USA*

Jan 2023 – Present

- Led frontend architecture and development of a large-scale system topology platform (“360 View”), enabling real-time visualization of service dependencies and incident impact across enterprise systems; adopted across 3+ engineering teams
- Built a high-performance interactive dependency visualization system (React, TypeScript, Cytoscape.js) supporting 50–6000 nodes, with advanced capabilities including hierarchical drill-down, node traversal, filtering, and graph compaction for efficient root cause analysis
- Improved rendering performance by ~14x (20s → ~1.45s) through web workers, data aggregation strategies, and optimized render cycles, enabling smooth interaction with large datasets
- Delivered recoverability and disaster recovery features (failover workflows, environment-aware playbooks, operational tooling) used during critical production incidents, improving system resilience
- Led development of a configuration-driven form builder platform and responsive operations dashboards used by leadership, automating internal workflows and enabling scalable, self-serve UI systems for data monitoring and trend analysis
- Mentored engineers and influenced frontend architecture decisions, driving code quality through reviews and evaluating visualization technologies (Cytoscape.js, KeyLines, yFiles)

Lead Software Engineer | *Aidar Health Inc., Baltimore, MD, USA*

Aug 2020 – Dec 2022

- Led a team of 4 engineers in a fast-paced startup environment, owning product roadmap, sprint planning, and execution while working directly with CTO/CEO to deliver high-impact healthcare solutions
- Architected and developed a real-time peer-to-peer video conferencing platform (WebRTC) enabling decentralized clinical trials, supporting 25+ concurrent sessions with low-latency streaming and high availability (~99.5% uptime)
- Built a HIPAA-compliant digital therapeutics platform for remote patient monitoring and chronic care management, used by 500+ patients/providers, ensuring secure handling of sensitive health data
- Designed and implemented real-time medical data visualization systems (ECG, respiratory trends) using React and D3.js, reducing analysis time by ~20% and improving clinical workflows
- Established QA and release processes across the company, improving deployment reliability and reducing production issues by ~20%, while contributing to FDA and CE regulatory compliance for medical software
- Contributed to NSF grant initiatives, supporting successful acquisition of \$1.5M+ in funding

Software Engineer | *OpenDev Technologies Pvt. Ltd., Pune, India*

June 2015 – Dec 2017

- Developed an offline-first e-learning platform (“School-in-a-Box”) deployed on Raspberry Pi, enabling offline classrooms via a local server hosting preloaded educational content, quizzes, and real-time assessments
- Built responsive user interfaces using AngularJS and Bootstrap, supporting multi-device classroom environments within a local network
- Improved system performance by ~40% through SQL optimization and UNIX-based system tuning for low-resource hardware

TECHNICAL SKILLS

Frontend:	React, TypeScript, JavaScript, Next.js, Redux, D3.js, Cytoscape.js, WebRTC, HTML5, CSS3, GraphQL
Architecture & Performance:	Scalable UI Systems, Data Visualization, Performance Optimization, Micro-frontend Architecture
Backend:	Node.js, Java, Spring Boot
Cloud & DevOps:	AWS (S3, API Gateway, Cognito, EC2), CI/CD Pipelines, Git (GitHub, GitLab), Webpack, NPM
Databases:	MySQL, MongoDB, AWS RDS

EDUCATION

Master of Science in Computer Science, GPA 3.9

August 2018 – May 2020

The University of North Carolina at Charlotte, Charlotte, NC

Bachelor of Engineering in Computer Engineering, GPA 4.0

June 2012 – May 2016

University of Pune, Pune, India