VIDYASAGAR AKHUMUKHI

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Professional Summary_____

 A results-driven Software Architect with a proven track record of designing, engineering, and deploying complex, AI-driven software solutions from concept to production. Combines hands-on leadership in founding and scaling software ventures with deep expertise in full-stack TypeScript architecture, utilizing Next.js, React, Node.js, and Google Gemini. Expert in transforming complex real-world business problems into scalable, high-performance applications that deliver significant value.

Professional Experience_____

Front End Developer

Sevenhills Hospital

June 2021 - April 2023

- Led the complete architectural redesign and development of the HMIS frontend using React.js, driving a 20% improvement in system performance and a 15% increase in user satisfaction scores across medical staff.
- Engineered a comprehensive testing framework using Jest and React Testing Library, implementing unit and integration tests that ensured high code quality and application stability for the mission-critical system.
- Solved critical data integrity and security challenges by architecting the seamless integration with backend RESTful APIs responsible for managing sensitive patient medical records.
- Authored comprehensive technical documentation and delivered end-user training that increased user adoption and directly resulted in a 15% reduction in support tickets.

Education_____

Master of Science <u>University of Galway</u> Galway, Ireland August 2024

MSc Information Systems Management

Bachelor of Engineering

University of Mumbai

Mumbai, India

May 2021

• Bachelor of Engineering in Computer Science

Software Architecture & Al Initiatives

• <u>JobTrackAI</u> Aug 2025 - Present

Founded and led the end-to-end development of a sophisticated, AI-powered SaaS platform designed to solve a critical real-world problem: the inefficiency and manual burden of the modern job search. Owned the entire product lifecycle, from architectural design to deployment and scaling.

- Engineered a proprietary AI pipeline leveraging Google's Gemini 2.5 to automate over 90% of manual data entry in job application management, reducing average application completion time from 30 minutes to under 3.
- Architected and deployed a fully type-safe, full-stack application using Next.js 15 (App Router),
 TypeScript, and a PostgreSQL backend with Prisma, creating a robust, high-performance platform.
- Designed and implemented a Server-Side Rendering (SSR) architecture to ensure optimal performance, SEO, and fast initial page loads for a superior user experience.
- Developed and launched a suite of high-impact AI features, including an intelligent resume optimizer and a personalized cover letter generator with dynamic .docx export, which directly address major user pain points.
- Owned the entire system design, including secure, role-based authentication with Clerk, realtime data management with TanStack Query, and comprehensive form validation using Zod.

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- Factors Influencing Near-Miss Incidents in ASRS Database through NLP Analysis MSc ISM June 2024
 - Developed and trained a predictive machine learning model that achieved 92% accuracy in identifying contributing factors to near-miss incidents from a dataset of over 10,000 reports.
 - Engineered a complete data processing pipeline in Python for cleaning, feature engineering, and model evaluation, solving a critical safety analysis problem.

Core Technical Competencies

- Full-Stack Architecture: TypeScript, Next.js, React, Ecpress.js, Node.js, REST APIs, PostgreSQL, Prisma, Supabase
- AI & Machine Learning: Google Gemini Integration, Natural Language Processing (NLP), Python
- Languages: TypeScript/JavaScript, Python, SQL
- Methodologies & Tools: Agile/Scrum, Git, CI/CD, JIRA, Visual Studio, Zod, TanStack Query

Certification

- Electronic Arts Software Engineering Job Simulation Forage
- SQL and Relational Databases 101 Powered by IBM Developer Skills Network.
- Deloitte Technology Consulting Virtual Internship.
- C++ Fundamentals: Game Programming for Beginners GameDev.tv
- McKinsey Forward Program