

# Aman Anurag

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New Delhi, Punjab, India

## EDUCATION

<b>CT University</b> <i>Bachelor of Technology in Computer Science Engineering – CGPA: 8.67/10.0</i> • <b>Gold Medalist:</b> Highest CGPA in School of Engineering & Technology (CSE - AI)	Ludhiana, Punjab 2020 – 2024
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## TECHNICAL SKILLS

<b>Languages &amp; Frameworks:</b> JavaScript, TypeScript, React 19, Next.js, React Native, Node.js, Express.js, Fastify
<b>Frontend Technologies:</b> Redux, Zustand, Vite, Tailwind CSS, Material-UI, Bootstrap, Radix UI, Electron.js
<b>Backend &amp; Databases:</b> MongoDB, PostgreSQL, Prisma, Redis, RabbitMQ, WebRTC, Socket.io, RESTful APIs
<b>Cloud &amp; DevOps:</b> AWS (EC2, ECS, ECR, S3, IAM, CloudWatch), Docker, Jenkins, Kubernetes, CI/CD, Auto Scaling
<b>Tools &amp; Practices:</b> Git, GitHub, Jira, Agile/Scrum, Linux, Data Structures & Algorithms, Version Control

PROFESSIONAL EXPERIENCE	3+ Years Experience
<b>Full Stack Developer</b> <i>Klovertel Private Limited</i> <ul style="list-style-type: none"><li>Architected full-stack <b>accommodation management system</b> using <b>MERN stack</b> with <b>React Native mobile app</b>, featuring <b>real-time booking</b>, room allocation, and <b>payment integration</b> serving <b>500+</b> daily users with seamless cross-platform synchronization</li><li>Developed comprehensive <b>driver management system</b> with <b>live GPS tracking</b>, route optimization algorithms, and <b>automated dispatch</b> using <b>Socket.io</b> for real-time updates and <b>MongoDB geospatial queries</b>, reducing response time by <b>40%</b> and improving fleet efficiency</li><li>Built cross-platform mobile application in <b>React Native</b> with <b>offline-first architecture</b>, local caching using <b>AsyncStorage</b>, and <b>push notifications</b> using Expo, achieving <b>95%+ user retention</b> and 4.5+ app store rating</li><li>Implemented <b>role-based access control (RBAC)</b>, JWT authentication, and secure API endpoints handling <b>50,000+ API requests daily</b> with optimized database indexing and caching strategies</li><li>Engineered <b>LeadNest CRM</b> platform using <b>React 19</b>, <b>Vite</b>, and <b>TailwindCSS</b> with lead pipeline management, <b>drag-and-drop form builder</b>, <b>role-based access control</b>, and <b>TanStack Table</b> for handling <b>10,000+ records</b> with Excel/PDF export and fuzzy search capabilities</li><li>Integrated real-time features: <b>Twilio Voice SDK</b>, <b>WhatsApp messaging API</b>, <b>Firebase notifications</b>, <b>SignalR live updates</b>, <b>ApexCharts dashboards</b>, multi-language support (i18n), and <b>Sentry error monitoring</b> achieving <b>99.9% uptime</b></li><li>Built dynamic <b>product analytics dashboard</b> for Supra.tools using <b>Next.js</b> processing complex feature matrices with <b>interactive charts and data visualizations</b>, reducing analysis time by <b>40%</b> and enabling data-driven decisions</li><li>Developed <b>Trace Venue desktop application</b> using <b>Electron.js</b> with <b>offline-first architecture</b>, local database synchronization, and native OS integrations for <b>Windows, macOS, and Linux</b> with automatic updates</li></ul>	July 2023 – Present <i>New Delhi, India</i>
<b>Software Developer Intern</b> <i>Klovertel Private Limited</i> <ul style="list-style-type: none"><li>Built <b>RESTful APIs</b> and React components for <b>QR-based restaurant management system</b>, automating order processing and improving operational efficiency by <b>30%</b> with real-time kitchen display integration</li><li>Implemented <b>Redux store</b> for cart management with intelligent item aggregation - automatically incremented quantity for duplicate items and maintained cart persistence across page refreshes, reducing redundant API calls</li><li>Utilized <b>MongoDB transactions</b> to ensure data consistency across orders, payments, and inventory updates; implemented automatic rollback mechanism on payment failures to maintain database integrity</li><li>Optimized search functionality with <b>debouncing techniques</b> reducing API calls by <b>60%</b>; implemented <b>real-time updates via Socket.IO</b>, pagination, and email notifications using <b>Nodemailer</b></li><li>Integrated <b>Cloudinary</b> for image optimization and <b>CDN delivery</b> achieving <b>25% reduction</b> in system response time and improved page load performance</li></ul>	January 2023 – June 2023 <i>New Delhi, India</i>

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## KEY PROJECTS

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### Virtual Focus Room | React 19, WebRTC, Socket.io, Node.js, Express, MongoDB

 Live |  GitHub

- Built full-stack **real-time virtual co-working app** with **P2P video/audio** using **WebRTC**, screen sharing, collaborative whiteboard, chat with file attachments, and **tiered permissions** (guest/free/premium) supporting **concurrent sessions**
- Implemented custom **Socket.io signaling server** and complete **WebRTC flow** (offer/answer/ICE candidates) with **STUN servers**; used **RTCRtpSender.replaceTrack** for seamless screen-share toggling without peer connection renegotiation
- Designed responsive **VideoGrid component** with pinning, adaptive layouts, and spotlight mode; integrated productivity tools (**Pomodoro timers**, todos, ambient sounds) and **analytics dashboard** using **Recharts** for session insights
- Secured with **JWT authentication** and tier-based permissions; configured **10MB Socket.io buffer** for image sharing, implemented **private rooms** with password verification

### Code Execution Platform (LeetCode Clone) | React, TypeScript, Node.js, Fastify, Redis, Docker, AWS

 GitHub

- Architected **microservices-based platform** for code compilation and execution with **seamless scalability** and **high availability**; deployed on **AWS** with **auto-scaling** capabilities handling **concurrent submissions**
- Built sophisticated **Problem Admin Service** using JavaScript, Express, and MongoDB for problem creation, test case management, and editorial content with rich text editor
- Developed cutting-edge **Executor Service** in TypeScript leveraging **Docker containers** for **multi-language code execution** (Java, Python, C++); employed **Strategy and Factory design patterns** to optimize execution environments
- Designed robust **submission service** with **Fastify** handling high volume requests; utilized **Redis message queues** for efficient **asynchronous communication** and implemented **WebSocket** for **real-time feedback**

### Project IDX Clone (Cloud IDE) | React, TypeScript, Node.js, Docker, Zustand, WebSockets

 GitHub

- Dynamically provisions secure **Linux containers** for each project using **Dockerode** ensuring complete isolation and consistency; supports multiple development environments with custom configurations
- Built full-featured **in-browser terminal** using **xterm.js** connected via **WebSockets** allowing **shell command execution**, package installation, and server start-up with real-time output streaming
- Developed **real-time file explorer** with complete **CRUD operations**, powered by **Chokidar** for instant synchronization between UI and backend

### Course Management System (LMS) | React, TypeScript, Node.js, MongoDB, Docker

 GitHub

- Full-featured **Learning Management System** with enrollment system, structured video tutorials with **progress tracking**, and **secure payment integration** using Razorpay/Stripe
- Implemented **Markdown-based note-taking system** with **PDF export functionality**, plus **real-time quiz engine** with immediate feedback, scoring, and performance analytics
- Integrated **Monaco Editor** with **multi-language support** for coding exercises; executes code safely in **sandboxed Docker containers** via backend API

### Mindfulness Meditation App | React Native, TypeScript, Expo, Tailwind CSS

 GitHub |  APK

- Custom **audio player** built with **expo-av** supporting **background playback**, seamless looping, synchronized countdown timers, and playback controls with sleep timer functionality
- Robust **local push notification system** using **expo-notifications** to schedule personalized daily reminders and meditation streaks to build consistency
- Implemented **file-based routing** with **Expo Router** for clean, scalable navigation structure and native-like transitions

## DEVOPS & CLOUD EXPERTISE

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### AWS Cloud Fundamentals & Infrastructure

 GitHub

- Deployed and managed **Node.js applications** on **AWS ECS (Fargate)** using containerized workloads; built and pushed **Docker images** to **Amazon ECR** with secure ECS service configuration and task definitions
- Automated application deployment using **CI/CD pipelines with Jenkins**, reducing manual deployment effort; configured **AWS EC2 instances** for application hosting with environment setup and process management
- Utilized **Auto Scaling Groups (ASG)** to handle traffic spikes and improve application availability; implemented **AWS IAM roles and policies** for secure service-to-service communication with least-privilege access
- Integrated **Amazon CloudWatch Logs** for centralized logging and monitoring of ECS tasks and services; utilized **Amazon S3** for static asset storage, backup solutions, and configuration management
- Worked with **Docker** to containerize Node.js applications and manage multi-environment builds; familiar with **Kubernetes** concepts including Pods, Deployments, Services, and container orchestration
- Followed **Agile/Scrum methodology** using **Jira** for sprint planning, task tracking, issue management, and collaborative development workflows