

RAHUL AITHAL

FULL-STACK DEVELOPER

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PROFESSIONAL SUMMARY

Backend-focused Full-Stack Developer specializing in scalable server architectures, automation workflows, and cloud infrastructure. Proven expertise in building robust backend systems using Node.js, Python, and message queuing with RabbitMQ. Strong foundation in system programming with C++, workflow automation using n8n, and passion for creating efficient, high-performance backend solutions.

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Python, C++, HTML5, CSS3

Frontend Technologies: React.js, Tailwind CSS, Bootstrap, Chakra UI

Backend Technologies: Node.js, Express.js, FastAPI, MongoDB, PostgreSQL, RabbitMQ, Redis, n8n

Cloud & Deployment: AWS EC2, Vercel, Cloud Hosting & Server Management

Development Tools: Git, GitHub, Web Scraping, API Integration, Real-time Systems

Testing & Libraries: Jest (Familiar), Docxtemplater, Baileys (WhatsApp API), Cloudinary

Soft Skills: Collaborative Communication, Problem-Solving, Adaptability, Project Management

PROFESSIONAL EXPERIENCE

WhatsApp News Bot (Prototype) | Full-Stack Developer

2025

- Architected an automated WhatsApp news delivery system using Baileys npm package for real-time message handling and news distribution across WhatsApp groups
- Developed backend automation workflows integrating multiple news APIs for real-time data extraction and implemented AI-powered summarization for concise cybersecurity news briefs
- Built complete automated pipeline achieving news aggregation, processing, and delivery within 3 minutes using Node.js and Express.js
- Optimized data processing by implementing content chunking algorithms and automated scheduling systems for consistent news delivery

Report Generation Tool (Prototype) | Python Developer

2025

- Designed and developed a comprehensive Python-based reporting system processing JSON data from Express.js and FastAPI endpoints, automating Word document generation
- Implemented scalable data ingestion services from MongoDB with efficient data transformation algorithms, reducing manual reporting workflow by 70%
- Integrated Docxtemplater library for professional-grade document creation with automated formatting and data visualization
- Developed resource management system with automated image cleanup processes and error handling for seamless file operations

HashVault LMS (Prototype) | Full-Stack Developer

2024

- Developed comprehensive Learning Management System for HashVault club using TypeScript Express.js backend with MongoDB for course content and user management
- Implemented Redis caching strategy for database optimization, caching video metadata and course content to reduce API response time by 40% on repeated requests

- Built custom video transcoding pipeline for processing and optimizing uploaded course videos, ensuring consistent playback quality across different devices
- Designed JWT-based authentication system with email/password login, providing secure access to course materials and user session management
- Created responsive frontend interface using Vite React.js and Tailwind CSS for seamless user experience across desktop and mobile platforms
- Developed video streaming functionality with cached video links delivery, enabling efficient content distribution and reduced server load

Ink Well App | Full-Stack Developer

2024 | [Live Application: https://ink-well-client.vercel.app/](https://ink-well-client.vercel.app/)

- Developed real-time collaborative story writing platform enabling multiple users to create, edit, and co-author stories with dynamic interaction features
- Implemented comprehensive authentication system with JWT tokens ensuring secure user sessions and personalized content access
- Integrated Cloudinary for optimized media management, enabling seamless image uploading and storage for user-generated content
- Engineered real-time notification queue system using RabbitMQ for instant updates on story modifications and collaborative activities
- Built scalable MERN stack application with MongoDB for data persistence, Express.js API layer, React.js frontend, and Node.js runtime, improving platform responsiveness by 25%

E-commerce Application ([GitHub](#)) | Frontend Developer

2024

- Developed fully responsive e-commerce web application frontend using React.js and Chakra UI with mobile-first design approach
- Designed and implemented 7 key pages including product catalog, search functionality, category filtering, shopping cart, and user authentication with dark/light mode toggle
- Integrated REST APIs for dynamic product data rendering, shopping cart management, and user interaction tracking
- Implemented advanced UI features including hover effects, interactive product galleries, and blog section for enhanced user engagement
- Optimized application performance using React best practices, code splitting, and lazy loading, achieving 40% improvement in user interaction metrics

TECHNICAL PROJECTS

CLI Tools Collection | C++ Developer

2024

- [Mini File Viewer](#): Developed command-line text file reader with navigation controls (forward, backward, reset) for efficient file browsing
- [CLI Todo App](#): Developed comprehensive command-line task management system with CRUD operations (create, read, update, delete), task completion tracking, and persistent file storage for reliable data management.
- [File Inspector CLI](#): Built comprehensive file metadata analyzer displaying line count, word count, file size, and hex magic number identification
- [Hex Viewer CLI](#): Created hexadecimal file display tool replicating hex editor functionality for binary file analysis and debugging
- [Basic Calculator](#): Implemented CLI calculator with mathematical operations and user-friendly interface for quick calculations
- Demonstrated system-level programming skills with efficient file handling, memory management, and user input validation

EDUCATION

BNMIT College, BE Computer Science Engineering | Bengaluru

2023 - Present | Current CGPA: 9.2/10.0 | Year: 3rd | Semester: 5th

Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Computer Networks, Software Engineering, Operating System

DEPLOYMENT & CLOUD EXPERIENCE

- **AWS EC2 Deployment:** Hands-on experience with Amazon EC2 instance management, server configuration, and application deployment for web applications and automation systems
- **Version Control & Collaboration:** Proficient in Git workflows, GitHub collaboration, and project management with experience in team-based development environments