# ABHISHEK ANAND

*Results-driven professional targeting roles in **Back-end Development** to utilize expertise in Node.js and AWS serverless architectures, aiming to deliver scalable, efficient, and maintainable solutions that drive business impact and innovation.*

📱 +91-7488323515 ✉ abhishekanand841@gmail.com 🔗 **LinkedIn** git **GitHub**

## PROFILE SUMMARY

- **IIT Roorkee Alumnus** with **over 2 years** of expertise in designing robust, maintaining **back-end systems** using **Node.js and TypeScript**, emphasizing **clean architecture** and scalable codebases.
- Skilled in leveraging **AWS serverless services** like **Lambda, API Gateway, DynamoDB,** and **SQS** to build cost-effective and scalable cloud-native applications.
- Experienced in **implementing dynamic traffic routing** and **real-time configurability** to enhance system flexibility and reduce downtime during updates.
- Proficient in **diagnosing and resolving concurrency** and **resource contention issues** to maintain consistent system performance under heavy loads.
- Capabilities at **integrating back-end services** with various **communication platforms** and **third-party APIs** to deliver seamless, automated user interactions.
- **Strong advocate** for applying **design patterns** and **best practices** to improve **code modularity**, readability, and long-term maintainability in backend projects.

## TECHNICAL SKILLS

- **Programming Languages:** C++, JavaScript, TypeScript, Java
- **Development:** Node.js, Nest.js, Serverless Framework, System Design, Low Level Design
- **Cloud Computing:** AWS (Lambda, S3, API Gateway, CloudWatch, QuickSight, Systems Manager, Cognito, SNS, SQS, DynamoDB)
- **Tools & Platforms:** Git, Linux, MongoDB, Redis, Dialog Flow, Postman, Jira

## WORK EXPERIENCE

### Jun'23 – Present: Software Engineer | Tata AIG, Gurgaon, India

*Key Result Areas:*

- Designing, developing, and maintaining scalable RESTful APIs to support front-end applications and third-party integrations, ensuring high performance and reliability.
- Optimizing database schema design and writing complex queries to enhance data retrieval speed and maintaining data integrity across relational and NoSQL databases.
- Implementing robust server-side logic using NestJS, improving application efficiency, security, and maintainability.
- Conducting code profiling, debugging, and load testing to identify bottlenecks, resulting in improved application response times and reduced downtime.

*Highlights:*

- Architected and developed a highly scalable event-driven system managing over **100,000 document** generation events daily, ensuring fault tolerance and reliability.
- Upgraded and maintained a widely-used internal web application back-end by migrating from **Node.js 14 to Node.js 20**, thus enhancing performance, security, and compatibility with modern dependencies.
- Automated critical manual workflows through custom JavaScript scripting, thus improving operational efficiency and reducing execution time.
- Managed and optimized a serverless communication service, thus processing more than **1 million** communications per day.
- Built an intelligent **WhatsApp chatbot** that delivers dynamic, automated responses tailored to user queries, improving user engagement and support.
- Diagnosed and fixed concurrency-related issues in a high-throughput environment by implementing atomic resource allocation mechanisms, increasing system stability under concurrent loads.
- Boosted API response times by **40%** via back-end code optimization and effective resource management.
- Developed and deployed a dynamic, percentage-based traffic routing mechanism for external services with real-time configurability, thus removing the need for redeployment during updates.
- Refactored legacy codebase by applying appropriate design patterns, thereby enhancing modularity, readability, and maintainability across the system.

## PERSONAL DETAILS

- **Date of Birth:** 26th September 2002
- **Languages Known:** English, Hindi
- **Address:** Gurgaon, Haryana, India

## CORE COMPETENCIES

- *Scalable System Architecture*
- *Cloud-Native Application Development*
- *Event-Driven Programming*
- *Performance Optimization Strategies*
- *Agile Software Development Methodologies*
- *Data-Driven Decision Making*
- *User Experience Enhancement*
- *Continuous Integration and Deployment*
- *Automation and Process Improvement*
- *Cross-Functional Team Collaboration*

## EDUCATION

- **2023: B.Tech. in Computer Science and Engineering** from Indian Institute of Technology, Roorkee Roorkee, India

## ACHIEVEMENETS

- **MCM Scholarship Recipient** — Awarded for academic excellence at IIT Roorkee (2020–2023).
- **CodeChef Global Rank 60** — Secured **60th position** in the CodeChef June Lunchtime Contest 2022.
- Competitive Programming Ratings: **Codeforces Expert** (Max Rating: 1623); **CodeChef 6-Star Coder** (Max Rating: 2056)
- **GeeksforGeeks Code-Battle** — **Ranked 20th** among top Indian institutes in coding competition.

## POSITION OF RESPONSIBILITY

- Student Mentor (SMP), UG Teaching Assistant

## PUBLICATION

- *"iZKP-AKA: A secure and improved ZKP-AKA protocol for sustainable healthcare",* **2025** ([Link](#))
  - *Developed iZKP-AKA, a zero-knowledge proof authentication protocol enhancing IoT healthcare security against major attacks.*
  - *Integrated smart contracts to enable secure and reliable authentication for IoT healthcare applications.*

## SOFT SKILLS

- Effective Communication
- Adaptability
- Analytical Thinking
- Time Management