

Deepak Kharol

Senior Software Engineer, CleverTap

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SUMMARY

Backend-focused Software Engineer with a strong track record of building scalable, data-intensive systems used in high-throughput production environments. Experienced in owning complex backend features end-to-end—from system design and data modeling to performance optimization and operational reliability. Known for solving growth-driven problems, leading critical initiatives, and mentoring engineers while delivering measurable business impact.

EXPERIENCE

- **CleverTap** — Mumbai, Maharashtra, India
– *Senior Software Engineer* Jan 2024 – Present
 - * **Advanced Frequency Capping:** Developed a rule-based frequency capping system with label-level, channel-level, and cross-channel limits to prevent user over-messaging at scale.
 - * **Unified Inbox:** Designed a Redis-backed, server-side inbox system for storing and delivering user messages; contributed to migration of **\$1M ARR**.
 - * **Campaign Auto Archival:** Built an automated archival pipeline to offload inactive campaign targeting data from the primary MongoDB cluster to a dedicated archival datastore, improving performance and system stability.
 - * **Linked Content Personalization:** Architected external API-driven content personalization for campaigns, enabling dynamic payload generation and significantly reducing client onboarding friction.
 - * **Versioned Messaging** — Implemented multi-version support for campaigns messages.
 - * **PII Encryption** — Led encryption of user properties, email, and phone with controlled runtime decryption.
 - * Acted as POC for a 10-member team; mentored 3 engineers delivering 5 production features in 2 months.
- *Software Engineer* Jul 2022 – Dec 2023
 - * **Campaign API Platform:** Developed APIs enabling clients to create Push, Email, and SMS campaigns programmatically; currently powering **40%+** of all campaigns on the platform.
 - * **Audience & Ads Integration:** Integrated Facebook and Google Ads workflows for audience creation and ad set targeting using profile attributes such as email and phone number.
 - * **Push Notification Analytics:** Built analytics pipelines and dashboards to compute push notification render rates (Impressions / Sent), improving campaign performance visibility.
- *Backend Intern* Dec 2021 – Jun 2022
Contributed to backend services, production fixes, and performance improvements.
- **Dell Technologies** — Bengaluru, India May 2021 – Jul 2021
Business Intelligence Intern — Built dashboards and delivered insights using Power BI and Tableau.
- **Verzeo** May 2020 – Jun 2020
Machine Learning Intern — Developed supervised learning models on real-world datasets.

EDUCATION

- **Kalinga Institute of Industrial Technology, Bhubaneswar**
B.Tech in Computer Science (**CGPA: 9.36**) Jul 2018 – Jun 2022
- **AECS-4 Rawatbhata, Rajasthan** — Class XII (CBSE) **91.4%** 2015 – 2017
- **AECS-2 Rawatbhata, Rajasthan** — Class X (CBSE) **9.4 CGPA** 2005 – 2015

SKILLS

- **Languages & Systems:** Java, C++, Python, Redis, MongoDB, RocksDB
- **Backend Engineering:** Distributed Systems, API Design, Data Modeling, Performance Optimization
- **Professional Strengths:** Technical Leadership, Structured Problem Solving, Mentorship

AWARDS & INTERESTS

- KIIT Merit Scholarship for academic excellence
- Microsoft Technology Associate (MTA) Certification in Python Programming
- Interests: Long-distance bike riding, competitive football, chess (International FIDE-rated tournament participant), hiking, badminton