Utkarsh Ahuja

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Experience

Plazza | Software Engineer Intern   **Nov'24 – Feb'25** | Bengaluru, India
- Order service with **real-time sync**, **auto-retries**, **data cleanup** to reduce errors and improve order processing.
- **Payment processing pipeline** with **Razorpay integration**, automated reconciliation with **99.9% reliability**.
- **Elasticsearch** cluster on **AWS EC2** with Nginx, achieving **sub-70ms** query times for **8GB+ documents**.
- Geospatial service for **polygon-based serviceability**, **real-time ETAs**, and **closest address detection**.
- Search service with **custom fuzzy matching algorithms**, reducing query latency from **240ms to 60ms**.
- **Notification system** with **99.9% delivery rate**, ensuring **real-time updates** across **multiple channels**.
- **Operations dashboard** in **T3 stack** with **server-side pagination** and **efficient caching** for **70% faster loads**.
- **Event tracking system** with **optimized schema design**, ensuring **minimal latency**.

EL-FI Homes | Software Engineer Intern   **Sept'23 – Nov'23** | Remote - California, U.S.
- Developed a tool for analyzing solar panel savings with advanced algorithms, increasing qualified leads by **25%**.
- Implemented a secure admin system using **Node.js** with role-based access control, boosting efficiency by **30%**.
- Built a responsive frontend using **Next.js** and **TypeScript**, integrating **Chart.js** for insightful visualizations.
- Deployed the application on **AWS**, implementing CI/CD pipelines to ensure **99% uptime** and handle high traffic.
- Enhanced system performance with load balancing and caching, reducing latency by **40%**, improving user experience.

Stealth Startup | *Backend Developer Intern*   **March'23 – August'23**
- Built a community management portal serving **1000+** users with secure profile management
- Implemented **Redis** caching for frequently accessed data, cutting average API response time from **300ms** to **100ms**
- Integrated **Google OAuth2.0** for secure authentication, reducing login failures and improving user onboarding
- Added automated email notification system with for event updates and reminders, achieving **98%** delivery rate
- Created admin dashboard with **React.js** for managing user profiles and events, reducing task completion time by **35%**

Open Source Contributions

Appwrite | *PHP*
- Integrated Zoho **OAuth** Provider to Appwrite Authorization – PR
- Reduced extra data usage in API requests by **15%** through optimizing internal attributes and updating E2E tests. – PR

Projects

WikiSearch | *C++, Information Retrieval, TF-IDF, Web Indexing*   *Github* | *Preview*
- High-performance search engine in **C++** processing **25M** Wikipedia articles with **0.3s** average response time
- Designed custom indexing algorithm reducing memory footprint by **70%** while maintaining search accuracy and speed
- Implemented **TF-IDF** ranking with optimized inverted index structure for efficient document retrieval and scoring
- Built scalable **web interface** with robust error handling and caching, serving **100+** concurrent search requests

Synkrō | *Node.js, GraphQL, MongoDB, Docker, RabbitMQ, Redis*   *Github*
- Designed ecommerce microservices architecture using **GraphQL** with isolated services for users, products and orders.
- Implemented **event-driven** architecture with **RabbitMQ** for reliable communication and data consistency
- Optimized performance using **Redis** caching, **JWT** auth, and **MongoDB** queries for robust data handling
- Containerized services with **Docker** and implemented **CI/CD** pipeline using GitHub Actions for automated deployment

Skills

Languages: C/C++, JavaScript, TypeScript
Technologies: Next.js, Node.js, React.js, MongoDB, PostgreSQL, Tailwind CSS
Frameworks & Methodologies: Git, Bitbucket, Jira, Agile (Scrum)

Education

Guru Gobind Singh Indrapastha University   **2021 - 2025**
B.Tech. in Information Technology   *CGPA: 8.6*

Achievements
- **Finalist - Smart India Hackathon** 2023
- **Ranked Knight (Top 5%)** - LeetCode (ahuja_utkarsh)
- Ranked **3rd** from 80+ teams in the VIT HackHub 2022 - Project Link
- Achieved **Rank 1736** in CodeKaze September 2023 out of 100k participants