

Yogesh Aggarwal

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EDUCATION

GGSIU UNIVERSITY

CSE: INDUSTRIAL INTERNET
OF THINGS (IIOT) (4TH YEAR)
CGPA: 8.5

LINKS

@yogeshaggarwal.in
@github/yogesh-aggarwal
@linkedin/YogeshDev215
@twitter/YogeshDev215

COMMUNITY WORK

SQL TOOLS [PyPi](#)

| 70K+ DOWNLOADS, 2K+ ACTIVE
Python package for low-thought,
multithreaded SQL database
handling using numpy.

COMMON REACT TOOLKIT

[GitHub](#)

| 15K+ DOWNLOADS, 500+ ACTIVE
Developed a react toolkit with
caching, hydration, reactive state
management, 143% performance.

SELF DRIVING CAR [GitHub](#)

| MACHINE LEARNING, COMPUTER
VISION

Lane detection algorithm for
self-driving car using OpenCV,
Python, and PID control.

SKILLS

Over 500k+ lines:

C/C++ • Golang • Python • Shell
JavaScript/TypeScript • Dart
CSS/SCSS • Java • Assembly
Rust • GLSL • OpenGL • Vulkan

AWS • GCP • Firebase • MongoDB
DynamoDB • MySQL • SQLite3
Redis • PostgreSQL • Hadoop

CMake • Premake • MSVSC
GCC • NodeJS • Swaggers

Designing:
AdobeXD • Figma

EXPERIENCE

VIVEKANANDA INSTITUTE OF PROFESSIONAL STUDIES — TECHNICAL CAMPUS | PRODUCT LEAD, MANTHAN ERP

2022 — 2024 | New Delhi, IN, [Admin Dashboard](#)

- Delivered a successful ERP system *from scratch* currently being used by over 7k+ students and faculty, improving institutional operations by 70%.
- Led a 5-member team to develop a comprehensive college ERP solution comprising of 2 dashboards (*React*) for administration & use and a dedicated academics app for students (*React Native*).
- Automated attendance tracking & leave management of faculties all brought together by integrating *biometric machines* & powerful reporting done through D3 & ChartJS.
- Utilized scheduled *edge cloud functions* & GCP for reporting, biometrics, attendance regulation, reminders, and other tasks powered by *Linux VMs*.

YOULAUNDRY | FREELANCE PRODUCT LEAD

2023 | New Delhi, IN, [App on Play Store](#)

- Spearheaded laundry service startup platform serving 2k+ satisfied users.
- Led cross-functional team, crafting seamless multi-platform solution *architecturally from scratch* with *Flutter* mobile apps for customers & delivery agents, *Firebase* for real-time push notifications, data storage, and *React* admin panel.
- Implemented robust *JWT* authentication with *NodeJS*, *Provider* pattern for uncompromised data integrity across platforms.
- Architected highly scalable *Express (TypeScript)* backend for efficient client communication with the *MongoDB* database.

SELECTED PROJECTS

MOCKER | DOCKER'S CLONE FROM SCRATCH | [GITHUB](#)

C++, Syscalls, Namespaces, UnionFS, Container Orchestration, Devops

- Developed a high-performance container management system from scratch in C++, leveraging Linux kernel namespaces and systems programming expertise.
- Introduced automated container orchestration via compose file, enabling coordinated multi-container application deployment and management.
- Implemented robust client-server architecture with diverse client interfaces including CLI, web & Desktop app powered by web sockets.

BACKBONE | WEB FROM SCRATCH USING LOCAL DNS | [GITHUB](#)

C++, Local DNS server, RFC1035, LRU & LFU Caching, Custom Domain

- Implemented a fully-fledged DNS server in C++ adhering to RFC 1035, featuring an efficient caching system built on top of LRU & LFU mechanisms to be able to work on embedded systems as well.
- Seamlessly resolving custom domain names, forming the backbone of a self-contained web ecosystem serviced by a custom made browser under progress called "*Steve*".
- Achieved interoperability with standard DNS requests while maintaining complete autonomy over domain resolution.