

Dhawal Agarwal

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github.com/dhawalagarwal10

Education

VIT Bhopal University , B.Tech. in Computer Science Engineering

October 2022 – May 2026

- GPA: 7.82/10.0

Skill Summary

Languages: Python, C++, Go

Database Systems: PostgreSQL, MongoDB, MySQL

Tools: Git, GitHub, GitHub Actions(CI/CD pipelines), FastAPI, Postman, BeautifulSoup, Docker, Kubernetes, Kafka, AWS, NumPy, Pandas, QuantLib

Concepts: Data Structures and Algorithms, OOPS, Alpha generation, Time-Series analysis, Low latency systems, System Design, Real-time Systems(Live Data Streaming, WebSockets)

Soft Skills: Team Collaboration, Agile Development, Technical Communication, Leadership

Experience

Research Consultant - WorldQuant

May 2025 – Present

- Engineered 50+ systematic equity strategies using FAST expressions for the US market, reducing correlation and improving diversification
- Simulated 2,200+ delay-0/1 strategies across multi-layered factors (sector, industry, beta-neutral), increasing prediction accuracy
- Validated models across OS/IS testing with real-time deployment, ensuring >90% consistency
- Collaborated in alpha optimization sprints, achieving a Sharpe ratio >2.0 on several models

Projects

BullishBot

github.com/BullishBot

- Architected a scalable trading engine, processing 15,000+ daily transactions across **25+ assets with 99.7% accuracy**
- Streamlined trading complexity by **90% using natural language processing** for 75+ commands with **sub-150ms latency**
- Guaranteed **98.9% uptime** with real-time execution and enterprise security protocols

EyeFi

github.com/EyeFi

- Engineered an object detection system using Wi-Fi CSI, **achieving >91% accuracy** across 5+ environments
- Developed a deep learning model (**Conv1D + Bi-LSTM + Attention**) to improve anomaly detection by 22%
- Facilitated real-time CSI streaming via Intel 5300 & Raspberry Pi, achieving **<250ms latency**
- Integrated domain adaptation, reducing retraining effort by over 95%

AirDropX

github.com/AirDropX

- Developed a decentralized P2P sharing app for offline LAN transfers up to **10 MB/s for files upto 5GB**.
- Built 6+ Go modules using TCP sockets and UDP broadcast for auto-discovery across OSes.
- Reduced file transfer **latency by 90%** and Implemented a CLI-driven UX **supporting 20+ file types**.
- Led performance testing with <1% failure across 50+ scenarios.

Achievements and Hackthones

llama (Open Source Contribution)

github.com/llama

- Contributed to Meta's LLaMA open-source initiative by implementing inference optimizations and model deployment scripts, supporting 7B-70B parameter models with distributed computing capabilities

Forage | Midas (JPMorgan Chase Project)

github.com/Midas

- Successfully executed and achieved certification for the JPMC project through Forage.

IQC | 2025

- Participated and secured global rank of 159 in stage 1 and a global rank of 289 in stage 2