

# Aakarshit Srivastava

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## SKILLS

**Languages:** Python, C/C++, Java, C#,Go,SQL

**Technologies & Tools:** ML, Data Science, NLP, Ethical Hacking, Cloud (AWS, GCP), Docker & Kubernetes, GenAI, Deep Learning, Prompt Engineering, Transformers ,Git/Github

**OS:** Unix/Linux, Windows, macOS, VisionOS,AppleOS

**Distributed Systems:** Distributed computing, cloud architectures , Datacenter

**Networking:** Information retrieval, TCP/IP

## WORK EXPERIENCE

**Volkswagen Group Digital Solutions [India]**

Jan 2025–Jul 2025

*Future Tech Intern, Pune, Onsite*

- Led quantum computing research: algorithms and simulators to optimize quantum processes.
- Designed and implemented RAG systems and vision models, enhancing automated decision-making.
- Integrated LLMs (GPT-based) into production pipelines, improving NLU accuracy by 18% and response latency by 12%, with vision and multimodal capabilities.
- Contributed to battery-efficiency projects with AI-driven optimization—significant energy savings.
- Explored Unreal Engine and Twinmotion for AR/VR application development and system prototyping.
- Collaborated in Agile teams to deliver robust engineering solutions, including drone automation workflows.

**Pranveer Singh Institute of Technology**

Feb 2024–Dec 2024

*Research & Development Specialist*

- Developed novel algorithms for energy optimization in high-load industrial environments.
- Developed Hybrid VM-scheduling approach reduced makespan by 25–30%, saved 5% energy, improved SLA by 8%.
- Published in peer-reviewed journals; collaborated with industry partners to cut costs by 20%.
- Utilized CloudSim, Java, Reinforcement Learning (Q-learning, SARSA), and meta-heuristics.

## EDUCATION

**PSIT Kanpur**

Nov 2021–Jun 2025

B.Tech, CSE (AI Specialization), CGPA: 7.6/10

Relevant: Data Structures,Algorithms, OS,Networks,Microprocessor, Object Oriented Programming, DBMS, Computer Networks, Machine Learning, Artificial Intelligence, Design and Analysis of Algorithms, Compiler Design

## PROJECT WORK

- **Crystal Quantum Shield**
  - Post-quantum API security (Kyber, Dilithium) in C++.
  - Real-time threat detection; deployed as cloud microservices.
  - Flipkart Grid 6.0 Top 10 Finalist.
- **BEAM (Volkswagen i.mobilothon 4.0 Winner)**
  - National hackathon winner: battery-efficiency via Reinforcement Learning (PPO) + LLMs.
  - IoT sensor integration for real-time energy management—validated in field tests.

## AWARDS & ACHIEVEMENTS

- National Winner, Volkswagen i.mobilothon 4.0
- Top 10 Finalist, Flipkart Grid 6.0
- Finalist, WoodPecker's Disaster Prediction Hackathon
- Founder of Research Organization ,over 20K monthly readers on Medium
- LeetCode Rank 30,000; 800+ Problems Solved

## PUBLICATIONS

- “QWhale & SARSAWhale: Hybrid RL Algorithms for Energy-Efficient Optimization”
- “Energy-Aware Algorithms for High-Load Cloud Environments”
- “Crystal Quantum Shield (CQS): A Post-Quantum Cybersecurity Framework”
- “Telomerase Dynamics for Enhancing Computational Models”