



Harsh Gupta | 22IM3FP29

B.TECH. in INDUSTRIAL ENGINEERING and MASTER OF FINANCIAL ENGINEERING
MINOR in COMPUTER SCIENCE & ENGG.

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EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2027	M.TECH. Dual Degree 5Y	Indian Institute of Technology Kharagpur	8.53/10
2022	Higher Secondary Education, CBSE Board	National High School	91.2%
2020	Secondary Education, CBSE Board	National High School	91%

WORK EXPERIENCE

- Full Stack Engineer Intern | Chainwide, USA** Jul 2024 – Dec 2024
- Engineered a **data integration** platform for 3 systems: **Salesforce, Confluence, and Notion** APIs, automated ETL processes
 - Developed a **Slack bot** using Slack Bolt, effectively handling queries through **3 RAG agents** for Sales, Service & Marketing
 - Created **monitoring dashboard** tracking 5+ RAG metrics for efficiency and engagement, **improving response quality by 40%**
- Research Intern | Deakin University, Australia** Mar 2024 – Jul 2024
- Analysed research papers on **anomaly detection**, synthesising methodologies to inform algorithm selection for **quality control**
 - Refactored and validated the **PatchCore algorithm** for manufacturing anomaly detection, **achieving 99.6% AUROC**
 - Authored a comprehensive **technical report** evaluating **4+ quality control constraints** and anomaly detection in manufacturing
- Machine Learning Engineer Intern | Practworks, India** Dec 2023 – Apr 2024
- Constructed a **dependency graph** for **700+ topics**, used by the ML engine to optimise sequences for **personalised learning**
 - Generated **48,000 synthetic data points** to train ML model that **recommends optimal learning topics** based on student profile
 - Engineered a **Random Forest-based** recommendation system to suggest topics, **achieving 67% recommendation accuracy**
- Software Engineer Intern | Ylytic, India** Sep 2023 – Dec 2023
- Integrated **5 analytics features**, including **engagements and brand mentions**, enhancing influencer evaluation capabilities
 - Reduced data processing time by **65%, from 60 to 21 seconds**, through workflow optimisation and improved processing logic
 - Implemented an **error-handling system**, processing records with **99.9% accuracy** in identifying and logging processing errors

ENTREPRENEURIAL EXPERIENCES

- Founder & Software Developer | Vanguard AI, India** Mar 2024 – Feb 2025
- Devised an **AI voice controlled inventory platform** for India's unorganised retailers, supporting **3+ regional languages**
 - Established a containerised, scalable **backend using FastAPI**, deployed on **AWS EC2**, automated through **CI/CD pipelines**
 - Received a Rs. 500K grant**, demonstrating the platform's potential to revolutionise inventory management for **12M+ retailers**

COMPETITIONS

- Opensoft '25: Mindflix | github.com/dudegladiator/Opensoft-25-backend** Mar 2025 – Apr 2025
- Pioneered an AI platform tackling **5+ well-being concerns** (e.g., stress) by delivering personalised support recommendations
 - Crafted a full-stack solution using React/Python, continuously identifying and **addressing employee well-being concerns**
 - Deployed sophisticated **graph database** architecture for relationship mapping and **delivering 7+ support recommendations**
- Hacktank: Video Proctoring Analysis | github.com/dudegladiator/Video-Proctoring-Analysis** Mar 2025
- Conceived a **proctoring system with triple-layer AI/ML** combining visual and pattern analysis to reduce false positives
 - Designed a sophisticated 3-tier analysis architecture integrating **LLMs, rule-based algorithms, and machine learning**

PROJECTS

- Personal Hedge Fund - Uninterrupted 24/7 Financial Manager** Jan 2025 – Apr 2025
- Integrated **real-time data** from **5+ sources**, automating ETL pipelines into a structured database designed for **financial market**
 - Constructed **3 AI agents** to get rapid financial insights, enabling decisions: **fundamental, technical, & sentiment analysis**
 - Created a **backtesting engine**, enabling strategy evaluation alongside **3+ key portfolio management** tools and techniques

SKILLS AND EXPERTISE

Programming & Libraries: Python, C++, C, SQL, NumPy, Pandas, Scikit-learn, FastAPI, NLP, LLMs, Matplotlib, Seaborn
Tools & Platforms: Git, Linux CLI, Docker, PostgreSQL, MongoDB, AWS, GCP, Excel, Jupyter Notebook, IBM ILOG CPLEX
Coursework: Statistical Learning with Applications, Algorithms Laboratory, Optimization Methods in Finance, Economics

LEADERSHIP & EXTRACURRICULARS

- Executive Head | Quant Club, IIT Kharagpur** May 2023 – Present
- Spearheading 1 research initiative**, authoring a comprehensive **white paper on algorithmic trading** for club members
 - Directed the **"Summer of Quant"** initiative, fostering skill development and knowledge sharing for **4,000+ community**
 - Orchestrated the **WorldQuant BRAIN Consultant Challenge**, collaborating with professionals to engage **250+ participants**

AWARDS & ACHIEVEMENTS

- Won the nationwide Bhashini Sprint Competition**, securing a **Rs. 500K grant** for an AI voice-controlled inventory
- Placed second in Optima's Hacktank Competition**, earning a **30K prize** for a video-proctoring system
- Earned a bronze medal in the Opensoft GC 2025 at IIT Kharagpur** for developing the Mindflix tracking platform
- Led Azad Hall's Illumination team to Gold at IIT Kharagpur's 2024 Diwali**, designing and executing a display
- Ranked in the top 1.5% of 1.3M candidates in JEE Mains** and in the **top 4% of 250K+ candidates in JEE Advanced**