Shubham Kumar

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Professional Summary

Aspiring analyst with a strong foundation in Mathematics and Computing and hands-on experience in data visualization, reporting, and anomaly detection. Proven ability to translate data into actionable insights with Power BI, Tableau, and Python. Adept at cross-functional collaboration, process optimization, and risk analysis—passionate about driving operational excellence and business impact.

Core Competencies

- Data Analysis & Visualization
- Risk & Control Awareness
- Business Communication & Presentation
- Operational Process Improvement
- MS Office Suite (Excel, Word, PPT, Access)
- Machine Learning & AI (GNNs, Autoencoders)
- Database Management (MySQL, DBMS)
- Agile & SDLC Understanding

Skills

Programming Languages: Python (Pandas, NumPy, Scikit-learn, PyTorch), C, C++, Java

Database Management: MySQL, Database Design & Optimization

Data Visualization & Analytics: Power BI, Tableau, Statistical Analysis

Machine Learning & AI: Graph Neural Networks (GNNs), Autoencoders, TF-IDF Vectorization

Operating Systems: Linux (Shell Scripting, System Administration)

Tools & Frameworks: LaTeX, Cisco Packet Tracer, AWS

Methodologies: Multi-Criteria Decision Making (MCDM)

Professional Experience

Data Visualization Intern, Tata Consultancy Services (TCS) — Chennai, India   December 2024

- Created dynamic dashboards in Power BI and Tableau, transforming complex datasets into actionable insights and enhancing executive decision-making.
- Partnered with cross-functional teams to define KPIs, improving reporting efficiency.
- Automated data preprocessing with Python, reducing report-generation time.
- Presented findings to senior management, receiving positive feedback.

Technology Trainee, Accenture UK (Virtual Program) — Remote   December 2024

- Applied SDLC and Agile practices in simulated project sprints.
- Optimized C++/Java code, improving application performance.
- Delivered a capstone presentation on workflow optimization, praised by mentors.
- Executed software-testing scenarios to enhance reliability.
- Utilized Git for collaborative development.

Solutions Architect Intern, Amazon Web Services (AWS) — Remote   December 2024

- Designed scalable cloud architectures with EC2, S3, and Lambda.

- Improved throughput via optimized infrastructure designs.
- Integrated security best practices alongside senior architects.
- Configured load balancers to ensure fault tolerance.
- Authored architecture documentation for future deployments.

Data Analytics Job Simulation Intern, Deloitte Australia — Remote   July 2025
- Completed a Deloitte job simulation involving data analysis and forensic technology.
- Created a data dashboard using Tableau.
- Used Excel to classify data and draw business conclusions.

Projects

Network Anomaly Detection System
- Engineered an anomaly-detection framework with GNNs and Enhanced Graph Autoencoders on the UNSW-NB15 dataset.
- Developed Dynamic Contextual Similarity (DCS) and Temporal-Behavioral Detection Score (TBDS) metrics for robust intrusion detection.
- *Tools: Python, GNNs*

Bank Account Management System
- Built a banking simulation using linked-list data structures for deposits, withdrawals, and balance inquiries.
- *Tools: C++*

Movie Recommender System
- Created a content-based recommendation engine with GNNs, Autoencoders, and TF-IDF on TMDB data.
- *Tools: Python, GNNs*

Cricket Players Database
- Architected a MySQL database for cricket player profiles with optimized schema and advanced search.
- *Tools: MySQL*

Publications

- Fuzzy TOPSIS Approach in Identification of Age Group in Women with Diabetes *10.31838/ecb/2023.12.3.063*

- A Statistical Study on IPL Team Performances *10.36478/10.59218/makjmms.2023.1.8*

- Eco-Revolution: Mapping the Global Transition to Sustainable Energy and Carbon Neutrality TOPSIS *Presented in ICRAMDS conference, 2024*

Education

VIT University, Chennai Campus — B.Sc. in Mathematics and Computing   June 2025
- CGPA: 9.12/10
- **Relevant Courses:** Data Structures, Machine Learning, Probability & Statistics, DBMS, Operating Systems, Deep Learning, Artificial Intelligence

Additional Information

Languages: English, Hindi

Certifications: TCS Data Visualization, Accenture UK Forage, AWS Solution Architecture, Deloitte Australia Data Analytics, Simplilearn Tableau, Cisco Packet Tracer, ICRAMDS Paper Presentation; MathsQuizOrganizer, TechnoVIT Central Committee, Vibrance Central Committee, Tesseract Coordinator (2025)

Awards: Meritorious Award (thrice) — VIT Chennai

Clubs/Committees: Mathematics Club (VIT Chennai), Magadh-Mithila Club (VIT Chennai)