

# Kumar Saurav Jha

Arlington, VA

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## TECHNICAL SKILLS

- **Programming & Scripting:** Python, R, SQL, Cypher
- **Databases:** MySQL, MongoDB, Neo4j
- **Tools & Technologies:** Excel, Tableau, Power BI, PyTorch, TensorFlow, Scikit-Learn, Statistical and Predictive Modeling, A/B Testing, Conda, Dash, Hugging Face, LangChain, Agile,
- **Certifications:** IBM Machine Learning Specialization, AWS Certified Developer - Associate

## EXPERIENCE

### George Washington University | *Research & Teaching Assistantship*

Aug 2024 - May 2025

- Developing a novel GAN-driven adaptive knowledge distillation framework for real-time object detection on edge devices.
- Co-facilitated curriculum development for 'Generative AI and Transformers' and served as a TA for Data Visualization and Data Warehousing courses. Directed dynamic, hands-on lab sessions in advanced data visualization; leveraging Python, Tableau, SQL, MongoDB, and graph databases; to significantly elevate student engagement and technical mastery.

### Deloitte India LLP | *Consultant (Data Science focus)*

Oct 2022 - Jul 2023

- Engineered predictive machine learning models (classification and anomaly detection) that reduced pipeline downtime by 25% and cut annual repair costs by \$1.2M, demonstrating effective risk management and data-driven decision-making.
- Utilized NLP and Computer Vision techniques to process and analyze approximately 500k equipment failure reports and technician notes, extracting actionable insights and automating root-cause analysis for improved operational reliability and reduced operational risks.

### Accenture Solutions Pvt Ltd | *Data Analyst*

Sep 2019 - Oct 2022

- Designed a Python-based payment inquiry gateway for Nationwide Mutual Insurance, leveraging machine learning to analyze customer transaction patterns and trigger targeted text/email alerts; resulting in a 20% increase in engagement and satisfaction.
- Implemented automated data validation process using Power BI for Cargill Inc., eliminating 2-hour daily manual effort by directly integrating SQL scripts into dashboard and enabling real-time tracking of system replication metrics.
- Automated SAP S/4HANA tasks like Shipping Point Creation and Fixed Asset Management, using SQL scripts for Cargill Inc, reducing manual efforts by 35% and cutting processing time by 50%.
- Worked closely with business stakeholders to define data requirements, improving the accuracy of KPIs and providing actionable insights for operations team.

## EDUCATION

### The George Washington University

May 2025

*Master of Science, Data Science*

- **Coursework:** Data Mining, Machine Learning, Cloud Computing, Customer Analytics, Computer Vision, NLP

### University of Pune

May 2019

*Bachelor of Engineering, Electronics and Telecommunication*

## PROJECTS

### Transport Cost Modelling for Sub-Saharan African Countries | *World Bank*

Feb - May 2025

- Collaborated with the World Bank team (Transport Global Knowledge Unit) to develop a calibrated transport choice model along with World Map trade-route visualization (React app) for efficient mineral transportation, better infrastructure planning, and future investments.

### Emotional Support Chatbot | *Build Fellowship program*

Nov - Dec 2024

- Engineered a context-aware conversational chatbot for emotional support by fine-tuning Google's T5-small on the ESConv dataset. Leveraged strategic response mapping and nuanced user input to generate highly contextual text, achieving perplexity score of 15.15.

### Highlight Reel: Automated Sports Content Generation | *Independent*

Oct - Nov 2024

- Developed an automated pipeline for Volleyball highlight reel generation using OpenCV, integrating metadata-based game liveness filtering, and custom motion analysis (speed & acceleration), Achieving 90% recall with Logistic Regression.

### NBA Box Scorers 1997-2023 | *Academic*

Mar - Apr 2024

- Built an interactive NBA statistics dashboard using Dash and Plotly, enabling player and team performance analysis with trend visualization, downloadable reports, data caching, and feedback submission for efficient processing of 25+ years of game data.

## CO-CURRICULARS & ACHIEVEMENTS

**Student Academic Assistant II**, Data Science department, GWU (Jan - May 2025) || Events & Initiatives chairperson in **Data Science Association**, GWU (Aug 2023 - May 2024) || Received the **Global Leaders Award** (tuition scholarship), GWU (Aug 2023 - May 2025) || **Mentored** 10 associates on Shell Global Solutions project at Deloitte (Jan - July 2023) || The **Rising Star Award** (Client Appreciation; Cargill Inc.), Accenture (July 2022)