DHANANJAY SHARMA

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EDUCATION

Stony Brook University, Stony Brook, NY   **Aug 2024 - Present**
Master of Data Science   GPA: 4.0 / 4.0
Coursework: Probability, Data Analysis, Natural Language Processing, Data Management, Statistical Learning, Visualization

Indian Institute of Technology Dhanbad, Dhanbad, Jharkhand   **Jul 2013 – May 2018**
Integrated Master of Technology in Mathematics & Computing   GPA: 8.75 / 10.0

EXPERIENCE

REGART (Intelligent Solutions for Regulatory Compliance), Amsterdam   **Mar 2020 – May 2023**
Full Stack Developer, Product Development
- Led **architecture design** for a web app used by 500+ employees in European financial institutions, achieving 100% compliance with regulatory norms.
- Built data models for 1,000+ regulatory documents in **JSON**, streamlining storage and retrieval processes.
- Developed a **version history** feature for tracking amendments across 200+ articles, boosting **UI** navigation by 40%.
- Integrated 15+ APIs to enhance **frontend-backend communication**, reducing system response time by 30%.

CGI (IT and Business Consulting Services), Bangalore, India   **Aug 2018 – Aug 2019**
Full Stack Developer, Product Software Development and Maintenance
- Contributed to a web portal for 1,000+ finance executives trading spot, futures, forwards, and swaps with multi-currency support.
- Generated **backend services** for **API** data retrieval and live currency streaming, enhancing user experience.
- Structured PoC for a multi-window trading block swap function, increasing interface responsiveness by 20%.
- Assimilated 20+ frontend components using **J2EE**, **Spring**, **Angular**, and **RESTful** services, ensuring stable data flow.

PROJECTS

Stock Market Price Prediction System (Skills: **Python, Scikit-learn, TensorFlow, Streamlit)**   **Jan 2024 – Mar 2024**
- Engineered a **ML** application forecasting next-day stock prices using **Random Forest models** with historical market data.
- Implemented **data preprocessing pipeline** and technical analysis with **moving averages** and trend identification.
- Constructed an interactive **Streamlit web app** displaying predictions and visualizations for investment decision support.
- Utilized **pandas, matplotlib,** and **joblib** for **data manipulation, visualization,** and **model persistence.**

Online Travel Reservation System (Skills: **SQL, MySQL, E-R Diagram**)   **Aug 2024 – Dec 2024**
- Designed a relational database in MySQL to manage 10,000+ records (airlines, airports, flights) with optimized SQL queries.
- Created E-R diagrams, enforced referential integrity, and executed complex SQL transactions for bookings and auctions.

Data Dimension Explorer (Skills: **Python, Flask, D3, JavaScript, HTML, CSS**)   **Aug 2024 – Dec 2024**
- Synthesized an interactive data visualization **dashboard** that performs **Principal Component Analysis** (PCA), **Multi-Dimensional Scaling** (MDS), and **K-means Clustering** on the Adult Census Income dataset, enabling exploratory analysis of demographic and financial attributes.
- Configured using D3.js, Flask, Python, HTML5, and CSS3, with a responsive interface featuring **scree plots**, **elbow plots**, **biplots**, **MDS plots,** and **scatter plot matrices** to reveal meaningful patterns in multidimensional data.

Multilingual Document Summarization System (Skills: **Python, Transformers, Pandas, Torch, Plotly)**   **Aug 2024 – Dec 2024**
- Executed a multilingual summarization system using **BART** and **PEGASUS**, achieving **ROUGE-1** (0.48, 0.44) and **BLEU** (0.38, 0.42). Assembled pipelines for preprocessing, translation, and evaluation, deploying a web application for accessible cross-lingual summarization and model comparison.

Pretrained Language Models for Sentence Classification (Skills: **Python, Transformers, PyTorch)**   **Aug 2024 – Dec 2024**
- Fabricated a classifier with frozen **BERT [CLS]** features, achieving ~96.4% accuracy on DBpedia. Evaluated pooling techniques, fine-tuned BERT layers, and optimized classifiers using **PyTorch** and **HuggingFace** for improved performance.

SKILLS

Languages: Python (NumPy, Pandas, Scikit-learn, Matplotlib, TensorFlow, Keras), SQL, R, C++, Java, JavaScript, MATLAB
Big Data & Machine Learning: OpenCV, Spark, Kafka, Excel, Git, AWS, Regression, Classification, XGBoost, Random Forest
Technologies: Kubernetes, Docker, Power BI, Tableau, Hadoop-MapReduce, MySQL, PostgreSQL, MongoDB, A/B Testing
Data Science Pipeline: Warehousing, Cleansing, Wrangling, Visualization, Modeling, Interpretation
Certifications: Angular-Java Spring Full Stack, Machine Learning (Stanford University), Data Analytics (Google)
Soft Skills: Problem-Solving, Critical Thinking, Collaboration, Communication, Teamwork, Adaptability, Attention to Detail