Proteek Kumar Sanyal

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PROFILE

Data Scientist with over five years of experience in managing, implementing data, specializing in developing and implementing Data Science and AI models. Skilled in generating tangible business value with proficiency in Databricks, Generative AI, Computer Vision and creating proof-of-concept prototypes, with a robust background in the entire Software Development Life Cycle (SDLC) focusing on requirements gathering, analysis, design, and development. Holds a Master of Data Science from Macquarie University, with a practical focus on business solutions.

TECHNICAL SKILLS & AREA OF EXPERTISE

Machine Learning Algorithms: Regression, Recommendation systems, Linear & Logistic Regression, Random Forests, SVM, Naive Bayes, k-NN, Clustering (K-means, hierarchical clustering)

Deep Learning: CNNs, RNNs, Transformers, BERT, NLP, CV

Programming Languages: Python, R, PySpark, Pytorch

Python Data Science Libraries: NumPy, Pandas, Matplotlib, Scikit-Learn, Seaborn, Tensorflow, Pytorch

Databases & Big Data: SQL, MongoDB, Neo4j, Databricks

Deployment & Production: Model deployment (AWS, Azure, GCP), Docker, REST APIs, Git, CI/CD pipelines, Kubernetes

Data Handling: Data preparation, Feature engineering, Data visualization

Mathematics & Statistics: Statistics, Linear algebra, Optimization techniques

SDLC Phases: Requirements gathering, Analysis, Design, Development/Engineering, Testing

Soft Skills: Communication, Stakeholder management, Problem-solving, Team leadership, Mentorship.

EDUCATION & QUALIFICATIONS

Macquarie University – Master of Science in Data Science	2022-2023
GLA University – Bachelor of Technology in Computer Science and Engineering	2011-2015

PROFFESIONAL EXPERIENCE

ML Engineer – Intern | Truuth   **July 2023 to Nov 2023**

- Enhanced product robustness, scalability, and long-term usefulness.
- Completed high-level Python coding for Machine Learning models.
- Boosted design and deployment success by integrating advanced ML techniques.
- Extracted trends from large datasets, supporting business decisions.
- Integrated fine-tuned models with TestApp stream for live app deployment.
- Committed to team success by collaborating across departments to deliver practical solutions.

Project: User Liveness

- Conducted SOTA literature review on face anti-spoofing.
- Developed exploratory data analysis insights for large datasets.
- Fine-tuned MobileNet models and integrated them with the current live app.

Data Scientist | Infinite Computer Solutions (India) Limited   **Aug 2021 to Dec 2021**

- Analyzed structured and unstructured data for actionable business insights.
- Improved data science processes through enhanced storage, integration, and reporting strategies.
- Designed instruments and applications for optimized data collection.
- Utilized Databricks to implement scalable ML models for efficient data processing.

Project: Edison Health Link (EHL) Platform

- Developed deep learning models for medical image analysis tasks, including segmentation and detection.

- Utilized CNN & computer vision architectures for feature extraction from imaging data.
- Integrated deep learning algorithms with imaging systems for real-time insights.
- Collaborated with cross-functional teams to deliver business-focused solutions.

Data Science Engineer | Tetra Soft India PVT. Ltd.   Dec 2020 to Jul 2021

- Delivered solutions using data-driven approaches and software needs insights.
- Created algorithms to handle special user and system requirements.
- Built scalable products using the latest technologies and approaches.
- Engineered data solutions using Azure Data Factory and Databricks, focusing on data processing and workflow automation, enabling accurate predictions.
- Led the data migration and warehousing projects, enhancing data integration and storage solutions.
- Collaborated closely with project stakeholders to gather and analyze requirements, ensuring alignment with business objectives.
- Conducted functional testing to validate the effectiveness of data solutions, ensuring robustness and accuracy.

Project: Passport 360

- Developed predictive models for assessing evacuation risk using machine learning techniques and managed the database schema, optimized SQL queries for performance enhancements.
- Presented project outcomes to key clients, facilitating workshops to discuss data-driven strategies and improvements.
- Conducted feature engineering to transform raw data into informative variables.
- Presented model results through insightful visualizations, reports, and presentations.
- Implemented holistic data science solutions using innovative approaches.

Senior Software Engineer - Developer | HCL Technologies   Aug 2016 to Nov 2020

- Drafted software requirements and managed design and testing processes.
- Executed functional and integration testing and software delivery support.
- Built and tested automation tools for infrastructure provisioning.
- Explored data profiles and limitations to identify data relationships.
- Applied analytical skills to solve challenges without prior patterns.
- Managed database operations and maintenance, ensuring data integrity and security.
- Participated in the development and testing phases of software projects, employing a structured approach to software delivery.
- Coordinated with cross-functional teams to achieve project milestones and deliver on customer expectations.

Projects

Grasp Tool:

- Parsed documents using deep learning & OCR models with Python 3.7.
- Created Web APIs with ASP.NET and C#.
- Integrated RabbitMQ for message queuing and ELK stack for logging.
- Developed holistic data science solutions by integrating technical expertise with innovative approaches.

Voice Platform:

- Developed Microservices for web request handling and S3 bucket management.
- Implemented BERT model for sentiment analysis.
- Highlighted sentiments through accurate text-based sentiment analysis.

KEYWORDS: Data Scientist, Machine learning Engineer, AI Engineer, Statistician, Solution Architect, Developer, Innovator

INDUSTRY KNOWLEDGE: Financial Services**,** Insurance**,** Healthcare