SOUMYA DASGUPTA

Senior Data Scientist

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⬡ Scholar google ➤ GitHub

🪪 PROFILE

Summary:

Experienced data-scientist with a demonstrated history of working in the urban mobility sector, healthcare and management consulting. Skilled in System Modeling, Python, Matlab, Data Analysis, Data Science, Machine Learning, SQL and Algorithms. Strong research professional with a Doctor of Philosophy (PhD) in Systems and Control with currently 6 years of hands-on work experience in Machine Learning.

🧠 SKILLS

Machine Learning
Regression, Classification, Recomendation, Time Series Analysis, Natural Language Processing, Deep Learning - ANN and CNN.

Cloud
Azure Synapse Analytics, Azure DevOps, Azure OpenAI, Azure Cognitive Search, Azure

Python
6 years of hands-on experience

LLM Generative AI
In-context learning, Tuning LLMS for enterprise data, Hugging Face

SQL
2 years of hands on experience using Big Query

💼 PROFESSIONAL EXPERIENCE

11/2021 – present
London,
United Kingdom

Deloitte Ventures, Tax and Legal ⧉
Senior Data Scientist

- Led and spearheaded the development of a data-driven solution that delivered exceptional tax savings of over £1 million for clients in the past year. As a manager, I successfully coordinated and guided my team to achieve these remarkable results.

- Implemented data-driven strategies that not only saved clients thousands of hours but also resulted in multimillion-pound savings. By leveraging key insights from client data, I contributed to substantial client fees earned by Deloitte.

- Demonstrated expertise in Machine Learning (ML) and Deep Learning (DL) techniques, effectively applying them to various tasks such as tax classification, anomaly and outlier identification, data extraction from unstructured documents, time series forecasting, and text understanding using advanced large language models like GPT-3.

- Pioneered innovation and generated new business opportunities by harnessing Large Language Models, such as Azure Cognitive Search and Azure OpenAI, across multiple client use cases. This in-context learning approach helped me stay ahead of the curve in the rapidly evolving Data & AI landscape.

- Collaborated with over multiple clients and experts in the Tax and Legal domain to address technology and business challenges. Through data insights, I successfully unlocked operational efficiencies and financial savings, leaving a significant impact on their operations.

- As the Lead Data Consultant, I took full responsibility for the development of cutting-edge machine learning models and business intelligence solutions. My expertise spanned from data engineering to implementing efficient cloud solutions, showcasing a comprehensive skill set.

- Nurtured and guided junior developers and consultants in various areas, including programming, automation, dashboard creation, data visualization, and the effective communication of results.

- Successfully communicated the value of Data & AI solutions to internal and external stakeholders through presentations and workshops. Outlined the design and benefits of these solutions in proposals, contributing to increased business opportunities for the organization.

08/2021 – 11/2021
London,
United Kingdom

NHS, England ⃞

Machine Learning Engineer

- Worked on the prestigious CAP-AI project, a pioneering research program in Artificial Intelligence conducted at Barts Life Sciences in east London.

- Leveraged AI/ML expertise, healthcare data knowledge, and an innovative approach to develop and trial AI solutions focused on improving cancer detection, chronic disease management, and healthcare delivery, including creating an accessible ML-powered cancer detection tool for pathologists to enable optimized, timely treatment decisions for patients.

Trust : Barts Health.
Primary Location: Royal London Hospital.

05/2019 – 06/2021
London,
United Kingdom

Beryl ⃞

Data Scientist

- Focused on addressing the bike redistribution problem in bike sharing systems. Tackling the principal operating costs related to bike redistribution and maintenance.

- Efficiently managed the fluctuating demand for bikes, which varies based on factors such as time, day of the week, holidays, and travel disruptions.

- Contributed to optimizing bike sharing operations and reducing operating costs, ultimately boosting the revenue of the firm.

- Worked on predicting the demand for bikes at various bike bays enabling the business to make better decisions regarding bike placement within the scheme. I explored multiple strategies to achieve this goal, like A/B testing, Multi-arm Bandit etc.

- Developed an accurate Machine Learning (ML) model using time series analysis and regression techniques which played a crucial role in predicting bike demand effectively.

- Implemented a user-friendly front-end app and deployed it using the Flask API, which allowed easy access to the predictive insights.

- Incentivized customers based on demand patterns to encourage them to relocate bikes strategically, which helped in managing the overall bike redistribution more efficiently.

04/2016 – 05/2019
Singapore, Singapore

Nanyang Technological University ⃞

Senior Research Scientist

- Focused on analyzing heavy-duty truck platoon movement, with one certified driver operating the lead vehicle and the rest autonomously following. Developed precise controllers for accurate velocity and inter-vehicular speed tracking within the platoon.

- Employed machine learning to anticipate accidents on Singapore highways, guaranteeing collision-free operations for the autonomous platoon vehicles. The predictions considered factors like weather conditions and other vehicles' movements. With this foresight, the platoon adjusted driving behavior proactively, augmenting safety and efficiency.

- Developed a sophisticated ML-based simulator (MATLAB, VISSIM, and NS3) to test platooning concepts. Simulated realistic traffic scenarios, enabling evaluation of traffic management algorithms and communication protocols effectively.

- Proudly received recognition with a trophy and cash prizes for our team's impactful work in platooning technology. Our research paper was acknowledged as the most innovative in the field, showcasing excellence and novelty in autonomous vehicle systems.

07/2011 – 12/2011 Kolkata, India	**Brainware Group of Institutions** ⌁ Assistant Professor

🎓 EDUCATION

01/2012 – 01/2016 Kolkata, India	**Ph.D** Jadavpur University, Network Control System
08/2009 – 05/2011 Kolkata, India	**Masters in Technology** Westbengal University of Technology, Instrumentation and Control
08/2005 – 05/2009 Kolkata, India	**Bachelors in Technology** Westbengal University of Technology, Electrical Engineering

🌐 LANGUAGES

English	● ● ● ● ●	Hindi	● ● ● ● ●
Bengali	● ● ● ● ●		

🏅 AWARDS

01/2022	**Vincent Bendix Automotive Electronics Engineering Award** ⌁ SAE Mobilus The award recognizes the authors of the best paper relating to the subject matter of automotive electronics engineering. Publication: An optimal controller systhesis for longitudinal control of platoons with communication scenarios in urban environments and highways.
08/2012	**DAAD-AvH Research Grant** ⌁ Alexander Humboldt Foundation, Germany Analysed the effect of data-drops on stability of nuclear power plants using the concepts of switched systems for NCS.

🎻 INTERESTS

- Travelling
- Photography
- Cooking