

# Spandan Das

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## Education

Degree	Institution	Major	Grade/Percentage
B.E., 2025	Jadavpur University	Computer Science	8.51 (till 6th semester)
12th Standard, 2021	Birla High School, CBSE	Science	97.8%
10th Standard, 2019	Birla High School, CBSE	All Subjects	96.8%

## Skills

- **Languages:** Python, C, Java, C++, R
- **Frameworks:** React, Node.js, Express.js, Web3.js
- **Tools:** Git, Docker
- **Databases:** MySQL, MongoDB
- **Other:** Mathematics, Statistics, Machine Learning, Blockchain

## Work Experience

### Intern | PricewaterhouseCoopers

June - August 2024

- Developed a **decentralized digital platform** for a large pharmaceutical supply chain management system to accurately track shipments and batches of vital medicines.
- **Technologies:** Blockchain, Ethereum, Solidity, Kaleido

## Projects

### Density Estimation Using Normalizing Flow (Ongoing)

Under Prof. Srinjoy Das, University of West Virginia, School of Mathematical and Data Sciences

- Building a multidimensional time-series predictor using **Normalizing Flows** (MAF) and **Copulas** (IGC) for efficient predictions, with applications in **anomaly detection**.
- **Technologies:** PyTorch, TensorFlow, scikit-learn, Pandas, NumPy, R

### Large Scale Energy Farm Output Prediction

- Created 4 different models and then stacked them in an ensemble to form a more robust and accurate model for predicting the power output of a large scale wave energy farm
- Acheived **MAPE = 0.014** and **R2 score >0.98** for the final ensemble
- **Tech Stack:** tensorflow, scikit-learn, numpy and pandas

## Sales Prediction

- Created a sales predictor model for 10 Walmart stores in the U.S., removing seasonal effects and considering special events like holidays.
- Achieved **MAPE < 0.05**, capturing both seasonality and general trend accurately.
- **Tech Stack and concepts:** Prophet Model, time series prediction, numpy, pandas, scikit-learn

## C-like Compiler Analysis Phase

- Implemented the lexer, parser, CFG, and symbol table for a C-like compiler handling loops, operators, enums, structs, and functions.
  - Result: Functional **lexer**, **CLR parser**, and **symbol table** with a 472-state LR(1) automaton.
  - **Languages:** C++, C
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## Achievements

- **KVPY Fellow** - Qualified for SA category, 2020 (Rank 527)
  - **IOQP (Physics Olympiad)** - National Level Qualifier, 2021
  - **GATE 2024** - Rank 1291
  - **JEE Advanced** - Rank 2801
  - **WBJEE** - Rank 69
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## Languages

English, Hindi, Bengali