

ADITYA DEVPUTRA

📞 7008196708 ✉ ad14@iitbbs.ac.in ✉ daditya@iisc.ac.in

Education

M.Tech in Computational and Data Sciences

Indian Institute of Science, Bangalore

2024 – 2026

CGPA: 9.00/10

B.Tech in Mechanical Engineering

Indian Institute of Technology, Bhubaneswar

2013 – 2017

CGPA: 8.97/10

Relevant Coursework

- Intro. to Natural Language Processing(A+)
- Numerical Linear Algebra(A+)
- Intro. to Data Science
- Machine Learning for Data Science(A+)
- Computational Methods for Optimization
- Numerical Methods

Work Experience

Data Science Intern, Razorpay

May 2025 - July 2025

- Developed and integrated Reinforcement learning based Multi-Armed Bandit algorithms (Epsilon-Greedy, UCB) into the payment terminal sorting model to optimize decision-making. Explored offline policy evaluation and analyzed the adaptive methods, identifying limitations under delayed feedback scenarios.
- Designed and tested alternative approaches to address delayed feedback issues, improving reliability of model performance evaluation.

Projects

Design and Applications of tensor based Hyper-Graph Neural Networks

ongoing

- Tensor based methods to reduce/remove the information loss, which happens when Hyper-Graph is reduced to a graph.
- Implementing attention/transformer based method to better capture the hypergraph structure with a novel approach for position, structure based embedding.

Novel Indian Name Generator and English-to-Hindi Name Translator

March 2025

- Trained Neural N-gram and RNN-based language models on an Indian names dataset to generate novel Indian names.
- Implemented a Seq2Seq model using LSTM-based encoder-decoder architecture with attention mechanism and Byte-Pair Encoding tokenizer to translate names from English to Hindi.

Statistical Evaluation of Deep Learning vs. Traditional ML for Classification

March 2025

- Trained a CNN model for image classification and a U-Net model for image segmentation on a leaf dataset.
- Applied PCA to reduce image dimensionality and used the transformed features to train an XGBoost classifier for comparison with deep learning models.

Credit Card Fraud Detection

Dec 2024

- Performed Exploratory Data Analysis, Explored Under-sampling and SMOTE to handle problem of class imbalance.
- Performed hyper-parameter tuning and evaluated performance of Logistic Regression, KNN classifier, SVM, Decision tree, Random Forest and XGBoost.

Academic Assignments and Self Projects

- Implemented variations of Gradient Descent algorithm: Diminishing step size, Exact line search, Inexact line search using Wolfe condition, Perturbed Gradient Descent algorithm, Conjugate Gradient Method and higher order methods: Newton method and Quasi-Newton method, Compared solution of primal and dual form of SVM.
- Implemented Polynomial Regression using QR factorization (Gram-Schmidt, Modified Gram-Schmidt, Householder reflection) and Normal Equation, Performed Image Compression using Singular Value Decomposition.
- Predicted page rank from given Markov Transition Matrix using Power iteration algorithm.

Technical Skills

Programming Languages: Python, C++

Tools: PyTorch, Numpy, Pandas, PySpark, Git

Academic Accomplishments

- Selected for Internship under mentoring of Engineering Students by INAE Fellows during undergraduate study.
- Qualified Engineering Services Examination, 2022, AIR 56 in Mechanical Engineering paper, GATE 2023
- Started BAJA SAE club in IIT Bhubaneswar.
- Secured Class rank 3 in first year of M.Tech.