PRIYANSHI CHANDRA

M.Sc. Mathematics, NIT Surat | priyanshichandra2810@gmail.com | LinkedIn

EDUCATION

Sardar Vallabhbhai National Institute of Technology, Surat *July 2019 – July 2024*
Integrated Master of Science in Mathematics CGPA : 9.63/10, Rank: 1/54

Thesis: *Uniformly Convex Regularisers for High Dimensional Optimisation* (Score: 10/10)
Supervised by: Dr. David Martínez-Rubio (IOL Lab, Berlin), Dr. Amit Sharma (SVNIT)

Relevant courses: Probability & Statistics, Measure Theory, NLP, Optimization Techniques, Data Science, AI, ML, Linear Algebra

EXPERIENCE

1. Visiting research assistant at **Zuse Institute Berlin**'s Interactive Optimisation and Learning Lab (Jan 2024 - May 2024).
2. Research intern with **Prof. Nicole Mücke** at Institute for Mathematical Stochastics (Technical University of Braunschweig, Germany) (May 2023 - July 2023).
3. Research intern with **Dr Satyaki Mukherjee** in Theoretical Foundations of Artificial Intelligence group (Technical University of Munich, Germany) (Nov 2022 - Feb 2023).
4. **Junior Developer** at Google Developer Students Club (DSC), NIT Surat (2020 - 2021).
5. **Student member** at Institute of Actuaries of India (IAI).
6. Internship in Data Analytics, Machine Learning and AI using Python under Mr Bipul Shahi (CTO, Diginique Techlabs) as a part of **Cognizance-IIT Roorkee** (2020).
7. **ML/AI intern** at Tech Analogy working in the **NLP domain** (March 2022 - June 2022).

PROJECTS

Uniformly Convex Regularisers for High-Dimensional Optimisation Master's Thesis
Zuse Institute Berlin *Dr. David Martínez-Rubio*

· Thesis supervised by Dr. David Martínez-Rubio at IOL Lab, Zuse Institute Berlin.
· Investigated novel uniformly convex regularisers for integration into the mirror descent algorithm.
· Proved the uniform convexity of powers of p-norms in specific scenarios where uniformly convex regularisers lacked dimension-independent constants.

Lakshyaan: A Novel Mission for Lunar Water Extraction Report
Sardar Vallabhbhai National Institute of Technology, Surat *Team LAKSHYAAN*

· Proposed a deep learning architecture to predict fuel-optimal thrust actions for autonomous lunar landing.
· Designed a theoretical methodology for efficient water extraction from lunar regolith.
· Presented at "Lunathon" organized by Spartificial and Indian Space Research Organisation (ISRO) and won second position.

Methods for Non parametric regression Report
Indian Statistical Institute, Kolkata *Dr. Anil Kumar Ghosh*

· Implemented piece-wise constant and linear estimators for function estimation in multivariate datasets.
· Studied projection pursuit regression and Nadaraya–Watson estimator for smooth, local estimates.
· Built foundations of CART algorithm.

Methods in Linear Regression Report
Indian Statistical Institute, Kolkata *Dr. Anil Kumar Ghosh*

· Studied estimation of model parameters and the concept of robustness.

· Applied least absolute deviation and quantile regression to data, minimizing the influence of outliers on the model's performance.

Statistical Analysis of Life Expectancy Data (WHO) Report
Sardar Vallabhbhai National Institute of Technology, Surat *Dr. Raj Kamal Maurya*

· Bachelor's mini project completed under Dr. Raj Kamal Maurya (Dept. of Mathematics, NIT Surat)
· Conducted a comprehensive analysis of global life expectancy trends utilizing statistical methods.
· Identified and characterized significant patterns in life expectancy variations across different countries, highlighting factors influencing these disparities.

AWARDS/GRANTS

1. **Gold medalist**, Department of Mathematics, NIT Surat (Batch 2024, CGPA 9.63/10)
2. Presented on **Kernel Regression and Nadaraya-Watson estimators** at the 64th IntERAct seminar series, Department of Mathematics, SVNIT Surat (November 2023)
3. Awarded **DAAD-WISE scholarship** for internship in Germany in summer 2023 .
4. Selected as **Indian Academy of Science** Summer Research Fellow (SRFP 2022).
5. **Finalist**, Smart India Hackathon 2022.
6. **Second position**, Lunathon organized by ISRO (2022).

EXTRA CURRICULARS

1. **Volunteered** in charitable events organised by the Uttarakhand Paramparik Utthan Samiti during Covid-19 pandemic.
2. **Magazine coordinator** for Society for Cultivation of Science and Humanities (SCOSH) NIT Surat from 2020 to 2022.
3. Served as **Management Executive** at DotSlash 4.0, a university level hackathon organised by ACM, NIT Surat (2021)
4. **Subject Matter Expert** for Class 6 to 10 for the subjects Math and Science (2020).
5. Trained in **Hindustani Classical Music** for four years.

LANGUAGES

Native or bilingual proficiency in **Hindi**
Full professional proficiency in **English** (IELTS band 8.5)