

**Project Title:** Coresets in Practice

**About Project:**

For an optimization function and a dataset, a coreset is a weighted sub-sample of the dataset that ensures provable theoretical guarantees. A coreset can be used to improve the scalability of ML/DL models. This project will focus on designing and analyzing coreset construction (data summarization with provable guarantees) algorithms to improve the scalability and robustness of various classifiers.

**Position:**

Research Associate (Full time position on IIT Delhi campus).

**Duration:**

6 months with a scope of renewal based on performance.

**Responsibility:**

- Read papers, understand results / algorithms, and implement.
- Participate in research discussions (theory & practice) with other team members.
- Discuss plan of action & report progress at regular intervals.
- Act as a source of information & give advice to other members of the group.

**Requirements:**

- Undergraduate / Postgraduate (Specialization in Computer Science, AI, Data Science, Maths or relevant fields).
- Good at Python, hands on experience in sklearn & Pandas.
- A good background in ML or DL, Linear algebra & Probability theory.
- Candidates with practical experience and a knack for research will have advantage.

**Perks:**

- Submit results to A\* or A conferences.
- Collaborate with researchers in CS AI @ IIT Delhi with a possibility of enrolling in PhD at IIT Delhi.
- Networking opportunity with peers & collaborators from [DataHeroes](#) research team in Israel & USA.
- Stipend: Rs 42,000.00 per month (including Rs 5000.00 performance bonus).

**Application Process:**

Please submit your application in this [form](#) by the 15<sup>th</sup> of October 2023. Shortlisted candidates will have to appear for an (Online/Offline) interview and arrange a letter of recommendation (preferably from relevant project or thesis supervisor).

For any queries, send email to [supratim@iiitd.ac.in](mailto:supratim@iiitd.ac.in).