

# Aryan Garg

✉ [aryan.raj.garg@gmail.com](mailto:aryan.raj.garg@gmail.com) 🌐 [Website](#) 🐙 [GitHub](#)

## EDUCATION

**Thapar Institute of Engineering and Technology** **Expected 2025**  
*Bachelor of Engineering in Computer Engineering* 8.63 / 10.0

**Relevant Coursework:** Object Oriented Programming, Operating Systems, Data Structures, Design and Analysis of Algorithms, Artificial Intelligence, Database Management Systems, Machine Learning, Accelerated Data Science, Embedded and Data Center Computer Vision

**The Millennium School, Noida** **2021**  
*12<sup>th</sup> Grade, CBSE* 95.20%  
*10<sup>th</sup> Grade, CBSE* 93.83%

## EXPERIENCE

**Machine Learning Research Intern** — Thapar Institute of Engineering and Technology **Nov 2023 – Present**

- Engineered an **Artificial Pancreas Simulation Software**, predicting the Insulin dosage for patients diagnosed with Type 1 Diabetes.
- Implemented **Q-Learning** in a continuous environment to regulate an external Insulin Pump under the guidance of the Department of Science and Technology, Haryana.

**Data Engineering Intern** — One97 Communications **July 2023 – Sept 2023**

- Devised an internal **SQL Parser and Optimization** engine as a utility for **20+** Business Analysts.
- Leveraged Real-World Data to find weaknesses in pre-existing solutions which resulted in an **improved performance of 40%**.

## PROJECTS

**Audio Transliteration – Hindi** — [[Hugging Face Spaces](#)]: PyTorch, OpenAI, Hugging Face, Transformers

- Optimized** Whisper Tiny by **OpenAI** reducing the Word Error Rate from **1.02** to **0.42**.
- Achieved **performance improvement of 27%** across all major Hindi speech datasets, surpassing the baseline results obtained from the non-fine-tuned model.
- Facilitated** the use of Hindi **Real-Time Transcriptions** on resource-constrained edge devices like the Nvidia Jetson Nano.

**Calorie Click** — [[Hosted Service](#)]: BeautifulSoup, PyTorch, FastAPI, PIL, Tensor Board, React

- Employed web scraping techniques to gather a dataset of **over 10,000 images** using BeautifulSoup.
- Elevated food identification with ResNet fine-tuning, achieving a top-3 accuracy of **92%**.
- Designed a robust API for **seamless integration** and to identify **20** food categories.

## POSITION OF RESPONSIBILITY

**Joint Secretary** – Microsoft Learn Student Chapter **May 2023 – Present**

- Played a pivotal role in leading over **150+** tech enthusiasts in the Student Chapter.
- Focused on leveraging **practical Machine Learning projects** to lead technical innovation, enabling **year-over-year growth** at events.

## TECHNICAL SKILLS

**Languages:** Python, C++, SQL

**Machine Learning Tools** Docker, Vertex AI, Hugging Face Transformers, PyTorch, Triton, TensorRT

**Development Tools:** Amazon Web Services, Apache Airflow, Kafka, DBeaver, FastAPI, GIT, Google Cloud Platform PostgreSQL, PySpark, Tableau Desktop and Prep

**Soft Skills:** Analytical and Curious Mindset, Leading

## CERTIFICATES

**Accelerating End-to-End Data Science Workflows** — Nvidia DLI [[Link](#)] **Jan 2024**  
**Generative AI with Diffusion Models** — Nvidia DLI [[Link](#)] **Dec 2023**  
**Pytorch for Deep Learning** — Zero to Mastery [[Link](#)] **Oct 2023**  
**AWS Academy Data Engineering** — Amazon Web Services [[Link](#)] **July 2023**