# Aryan Roy | Resume

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## Education

**Manipal Institute of Technology**                                        **Manipal, Karnataka**
*Computer and Communication Engineering*                        *Expected Graduation: May 2023*

- **CGPA** : 8.48
- Sem 1: 7.64 | Sem 2: 8.45 | Sem 3: 8.38 | Sem 4: 8.71 | Sem 5: 8.95 | Sem 6: 8.45 | Sem 7: 9.00

## Experience

**Fermi National Accelerator Laboratory**                                **Batavia, Illinois**
*Research Intern, Computing*                                          *26.05.2022 – 22.07.2022*

- Accelerated a widely used Python file I/O library using a lightweight DSL, achieving a 300x gain in performance when reading specific data types of interest.

**Princeton University**                                                              **Remote**
*Research Intern*                                                      *04.04.2021 – 30.08.2021*

- Developed a clustering library for particle physics data. The library showed a 25x throughput increase over the fastest alternative.

## Key Skills

- **Programming Languages**  : Python, C/C++, Java, Forth, SQL
- **Tools** : Data Structures and Algorithms, Object Oriented Programming, Data Mining and Predictive Analysis, Introduction to Big Data

## PROJECTS

**Pathfinders**

- Built a Python library for path finding in a given map with a vectorized interface and a C++ back-end.

**Shakespeare Generator**

- Trained a decoder only transformer for generating Shakespeare like text using a bigram language model and character level tokenization.

## Achievements

- **IRIS-HEP Fellowship** : Awarded the Fellowship twice.
- **AUVSI SUAS 2022** : Part of the team that placed $18^{th} globally$.
- **Mahindra Rise Prize** : Part of the only UG team to qualify for the finals.
- **Blue Sail Hackathon, 2019**  : Runner Up