

# Pratyush Das

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- *GitHub* <https://github.com/reikdas>

## Education

**Institute of Engineering and Management, Kolkata** 2017-2021(Expected)  
*Bachelor of Technology in Computer Science and Engineering*

**Don Bosco School, Park Circus** 2002-2016  
*Council for the Indian School Certificate Examinations*

## Experience

**Fermi National Accelerator Laboratory** June, 2018 - September, 2018  
Visiting Scientist - DIANA-HEP Fellow; Worked at the LHC Physics Centre as a part of the CMS Collaboration

*Mentor - Jim Pivarski(Princeton University)*

- uproot - ROOT IO Software in Python which streams all data as numpy arrays
  - Implemented library to write ROOT files
  - First ROOT file writing interface outside of C++ ROOT

**DIANA-HEP(CERN)** June, 2017 - August, 2017  
Summer Student(Worked from home)

*Mentor - Jim Pivarski(Princeton University), Viktor Khristenko(CERN)*

- spark-root - Apache Spark datasource for ROOT
  - Separated spark bindings from TTree reading code
  - Implemented Unit Tests
- root4j - ROOT library in Java
  - Optimized codebase to facilitate interoperability

## Programming Skills

**Experienced**

- *Python*

**Familiar**

- *Java* • *Scala* • *ROOT*

## Publications

- N.Saha, **P.Das**, H.N.Saha, "Authorship Attribution of Short Texts using a Multi Layer Perceptron", International Journal of Applied Pattern Recognition, 2018 Vol. 5 No. 3, Pages 251-259, DOI: 10.1504/IJAPR.2018.10016100. 2018

## Presentations

- "Separation of Concerns - Refactoring code between ROOT4J and Spark-Root"  
-DIANA Meeting: Student Projects(Vidyo); CMS Big Data Science Projects(Vidyo) 2017
- "Writing files with uproot"  
-ROOT Users' Workshop (Sarajevo, Bosnia & Herzegovina); DIANA Meeting: Updates on ROOT I/O(Vidyo) 2018

## Patents

- Bluetooth based navigation system for driverless cars, Application no. - 201831024950. *Patent pending.* 2018

## Achievements

- Awarded the prestigious DIANA-HEP Fellowship 2018
- International Rated Chess Player (Federation Internationale des Echecs) 2016
- Adhyayan Student Leadership Contest(Adhyayan India) - Third 2015
- IT Quiz (Computer Society of India) - Second 2014