

Pratyush Das

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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
 - Examined ROOT serialization of simple objects.
 - Added functionality to write ROOT files with strings and histograms.

DIANA-HEP 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

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

Patents

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

Achievements

- Awarded the IRIS-HEP undergraduate fellowship. 2019
- Awarded the DIANA-HEP undergraduate 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