

Pratyush Das

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Education

Institute of Engineering and Management, Kolkata <i>Bachelor of Technology in Computer Science and Engineering</i>	2017-2021(Expected)
Don Bosco School, Park Circus <i>Council for the Indian School Certificate Examinations</i>	2002-2016

Experience

Fermi National Accelerator Laboratory Mentor - Jim Pivarski(Princeton University) <i>DIANA-HEP Fellow; Visiting Scientist at the LHC Physics Centre as a part of the CMS Collaboration</i> <ul style="list-style-type: none">• uproot - ROOT IO Software in Python which streams all data as numpy arrays<ul style="list-style-type: none">- Examined ROOT serialization of objects.- Added functionality to write ROOT files with strings and histograms.	June, 2018 - September, 2018
<i>IRIS-HEP Fellow; Visiting Scientist at the LHC Physics Centre as a part of the CMS Collaboration</i> <ul style="list-style-type: none">• uproot -<ul style="list-style-type: none">- Added functionality to write ROOT files with TTrees.	June, 2019 - September, 2019
DIANA-HEP Mentor - Jim Pivarski(Princeton University), Viktor Khristenko(CERN) <i>Summer Student(Worked from home)</i> <ul style="list-style-type: none">• spark-root - Apache Spark datasource for ROOT<ul style="list-style-type: none">- Separated spark bindings from TTree reading code• root4j - ROOT library in Java<ul style="list-style-type: none">- Optimized codebase to facilitate interoperability	June, 2017 - August, 2017

Workshops and Summer Schools

CoDaS-HEP <i>Princeton University</i>	2019
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Programming Skills

Experienced <ul style="list-style-type: none">• <i>Python</i>	Libraries/Frameworks <ul style="list-style-type: none">• <i>numpy</i> • <i>ROOT</i> • <i>git</i>
Familiar <ul style="list-style-type: none">• <i>Java</i> • <i>C</i> • <i>Go</i>	

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

