

Pratyush Das

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Education

Institute of Engineering and Management, Kolkata <i>Bachelor of Technology in Computer Science and Engineering</i> SGPA: 8.62/10	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 - Dr. Jim Pivarski(Princeton University) <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 - ROOT IO Software in Python which streams all data as numpy arrays<ul style="list-style-type: none">- Added functionality to write ROOT files with TTrees.	June, 2019 - September, 2019
<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 -<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
DIANA-HEP Mentor - Dr. Jim Pivarski(Princeton University), Dr. 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

Summer Schools

Computational and Data Science for High Energy Physics <i>Princeton University</i>	2019
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Programming Skills

Experienced <ul style="list-style-type: none">• <i>Python</i> Familiar <ul style="list-style-type: none">• <i>Java • C • Go • C++ • SML</i>	Libraries/Frameworks <ul style="list-style-type: none">• <i>numpy • ROOT • git • CUDA • *nix • L^AT_EX</i>
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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
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Presentations

• Python in High Energy Physics - <i>Scipy India (Indian Institute of Technology, Bombay)</i>	2019
• The Scikit-HEP Project: Overview and Prospects - Eduardo Rodrigues et al. - <i>24th International Conference on Computing in High Energy and Nuclear Physics (University of Adelaide)</i>	2019
• Writing files with uproot - <i>PyHEP (Abington, UK)</i>	2019
• Writing TTrees with uproot - <i>IRIS-HEP Topical Meeting: Summer student project presentations(Vidyo)</i>	2019
• Writing files with uproot - <i>ROOT Users’ Workshop (Academy of Sciences and Arts of Bosnia and Herzegovina)</i>	2018
- <i>DIANA Meeting: Updates on ROOT I/O(Vidyo)</i>	2018
• Separation of Concerns - Refactoring code between ROOT4J and Spark-Root - <i>DIANA Meeting: Student Projects(Vidyo); CMS Big Data Science Projects(Vidyo)</i>	2017

Achievements

• Awarded travel grant to speak at PyCon USA 2020.	2020
• Awarded travel grant to attend PLMW and POPL 2020.	2019
• Awarded the IRIS-HEP undergraduate fellowship.	2019
• Awarded the DIANA-HEP undergraduate fellowship.	2018