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
SGPA: 8.62/10

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

Experience

Fermi National Accelerator Laboratory   June, 2019 - September, 2019
Mentor - Jim Pivarski(Princeton University)
  IRIS-HEP Fellow; Visiting Scientist at the LHC Physics Centre as a part of the CMS Collaboration
  - uproot - ROOT IO Software in Python which streams all data as numpy arrays
      - Added functionality to write ROOT files with TTrees.
                    June, 2018 - September, 2018
  DIANA-HEP Fellow; Visiting Scientist at the LHC Physics Centre as a part of the CMS Collaboration
  - uproot -
      - Examined ROOT serialization of objects.
      - Added functionality to write ROOT files with strings and histograms.

DIANA-HEP   June, 2017 - August, 2017
Mentor - Jim Pivarski(Princeton University), Viktor Khristenko(CERN)
  Summer Student(Worked from home)
  - spark-root - Apache Spark datasource for ROOT
      - Separated spark bindings from TTree reading code
  - root4j - ROOT library in Java
      - Optimized codebase to facilitate interoperability

Workshops and Summer Schools

CoDaS-HEP   2019
Princeton University

Fast Machine Learning   2019
Fermi National Accelerator Laboratory

Programming Skills

Experienced	**Libraries/Frameworks**
• *Python*	• *numpy* • *ROOT* • *git*
Familiar	
• *Java* • *C* • *Go*	

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
  -*PyHEP (Abington, UK)*   2019
- Writing TTrees with uproot
  -*IRIS-HEP Topical Meeting: Summer student project presentations(Vidyo)*   2019
- 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

Achievements

- Accepted to attend PLMW 2020 and POPL 2020 conferences with full scholarship.   2019
- Awarded the IRIS-HEP undergraduate fellowship.   2019
- Awarded the DIANA-HEP undergaduate felowship.   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