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

Programming Skills

Experienced

- *Python*

Familiar

- *Java* • *C* • *Go* • *C++*

Libraries/Frameworks

- *numpy* • *ROOT* • *git*

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

- Python in High Energy Physics
  -Scipy India (Indian Institute of Technology, Bombay) 2019
- The Scikit-HEP Project: Overview and Prospects - Eduardo Rodrigues et al.
  -24th International Conference on Computing in High Energy and Nuclear Physics (University of Adelaide) 2019
- 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

- Selected 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
- Adhyayan Student Leadership Contest(Adhyayan India) - Third 2015