

# Pratyush Das

- *Phone* (+91) 9051603323
- *Email* reikdas@gmail.com
- *GitHub* <https://github.com/reikdas>

## Education

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

## Experience

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

## Workshops and Summer Schools

<b>CoDaS-HEP</b> <i>Princeton University</i>	2019
---	------

## Programming Skills

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

## 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 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