

# Pratyush Das

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

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## Education

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### Institute of Engineering and Management

2017-2021(Expected)

*Bachelor of Technology in Computer Science and Technology*

- Innovation Lab
- Innovation and Entrepreneurship Development Cell, India(1 of 2 freshmen selected)

### Don Bosco School, Park Circus

2002-2016

*Council for the Indian School Certificate Examinations*

- Cyberspace Club - President
- Chess Team
- Tech Team

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## Experience

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### Fermi National Accelerator Laboratory

June, 2018 - September, 2018

Visiting Scientist - DIANA-HEP Fellow

*Mentor - Jim Pivarski(Princeton University)*

- Implemented the first ROOT file writing interface outside of C++ ROOT
- Worked at the LHC Physics Centre as a part of the CMS Collaboration

### DIANA-HEP

June, 2017 - August, 2017

Summer Student(Worked from home)

*Mentor - Jim Pivarski(Princeton University), Viktor Khristenko(CERN)*

- Refactored code between ROOT4J and spark-root to make ROOT4J accessible to all Java projects

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## Projects

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### uproot

*Fermi National Accelerator Laboratory*

- Added ROOT file writing support

### ROOT4J

*DIANA-HEP*

- Optimised codebase to facilitate interoperability

### spark-root

*DIANA-HEP*

- Implemented Unit Tests
- Separated Spark bindings from TTree reading code

### Driverless RC Car

*Innovation and Entrepreneurship Development Cell, India*

- Trained classifiers for Object Detection
- Patent Pending on Bluetooth based navigation system for driverless cars

### Computer Vision based Home Automation System

*Innovation Lab, Institute of Engineering and Management*

- Trained classifiers to accurately detect the presence of a human being

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# Programming Skills

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## Languages

- *Java* • *Scala* • *Python*

## Libraries/Frameworks

- *git* • *ROOT*
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# Publications

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- N.Saha, **P.Das**, H.N.Saha, “Authorship Attribution of Short Texts using a Multi Layer Perceptron”, International Journal of Applied Pattern Recognition, *Accepted*.
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# Presentations

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- “Separation of Concerns - Refactoring code between ROOT4J and Spark-Root”  
“*DIANA Meeting: Student Projects*”, 7th August, 2017
  - “Separation of Concerns - Refactoring code between ROOT4J and Spark-Root”  
“*CMS Big Data Science Projects*”, 9th August, 2017
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# Achievements

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| • Awarded the DIANA-HEP Fellowship (1 undergraduate student in the world)      | 2018 |
| • Participated in the National Rapid Chess Championship                        | 2017 |
| • International Rated Chess Player (Federation Internationale de echecs)       | 2016 |
| • Adhyayan Student Leadership Contest(Adhyayan India) - Third                  | 2015 |
| • Battle of Wits (Heritage School, Kolkata) - Second                           | 2014 |
| • IT Quiz (Computer Society of India) - Second                                 | 2014 |
| • Bosco Chaturang (Don Bosco School, Park Circus) - Second                     | 2013 |
| • Purbasha Open Chess Tournament (Purbasha Committee) - First                  | 2013 |
| • Essay Writing Competition (Income Tax Department of India) - Special Mention | 2012 |