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EDUCATION

Singapore international School, Mumbai, India **2017**
-- Will appear for the International Baccalaureate (IB) Examination at the end of Grade 12, in May 2017.

Hiranandani Foundation School, Thane, India **2015**
-- Appeared for Indian Certificate of Secondary Education (ICSE) Examination – Grade 10.

STATUTORY TESTS

Best SAT Composite Score: 1410/1600; Math score- 770, Reading & Writing score- 640. 2016
SAT Subject Tests: Mathematics Level II -800/800. 2016
TOEFL iBT Test: 104/120 2016
AP Course of Computer Science A: Score 4/5 2016

ACADEMIC HONOURS

• IB Score: In 11th Grade: Semester 1 - 39/42 (6 subjects) and Semester 2 - 39/42 (6 subjects) 2016
• Awarded Certificate of Academic Achievement for achieving Honors in Semester 1 of Grade 11 2015
• Awarded Certificate of Academic Achievement for achieving Honors in Semester 2 of Grade 11 2016
• Awarded the 'SIS Merit Scholarship" for outstanding Academic performance and extracurricular excellence in Grade 10 2015
• Awarded the 'SIS Merit Scholarship" for outstanding Academic performance and extracurricular excellence in Grade 11 2016
• Consistently in the top 8 in the school, in the 11th and 12th grade, in the science stream 2016
• Stood 1st in School in Computer Science in Grade 11 2016
• Scored 7/7 in both Semester exams of Computer Science, in Grade 11 2016
• Stood 1st in School in Math in Grade 11 2016
• Scored 7/7 in both Semester exams of Math, in Grade 11 2016
• Scored 92% in 10th Grade, ICSE Board exam. Awarded Certificate of Honor by School 2015
• Scored 98/100 in Computer Science in ICSE Board exam in 10th Grade 2015

COMMUNITY OUTREACH INITIATIVE

Track n Secure – a mobile app to reduce abductions of children. 2015
-- Nearly 40,000 children go missing every year in India, and over 300,000 in the world.
-- There are two Apps, for the parent and child phones. The parent App can track the child phone location and corresponding times, and the parent can inform friends or police to check if the child is moving away from the intended path. With the location data and the early alert, police search area is more accurate, which increases probability of retrieving the child. The App is difficult to delete from the child device.
--The app can be downloaded on any phone running the Android Operating System, and is available for free on Google Play Store.
-- The app has been appreciated by the Commissioner of Police, Thane city and child help NGOs such as CRY Foundation and Save the Children Foundation. They have agreed to increase awareness about it.
-To develop this app, I took two courses on Android application programming, offered by University of Maryland, College Park, on Coursera.

RESEARCH in Mathematics

Exploration of Successive Over-Relaxation Solver for Linear Systems. 2016
--Carried out this exploration under the internship of Dr. S. Baskar, Professor in the Department of Mathematics, Indian Institute of Technology (IIT), Bombay.
--Explored and researched about various iterative methods used to approximate the solution of linear systems, and why iterative methods of approximating the solution are much better than using exact methods such as finding the inverse of a matrix.
--The different types of iterative methods that were explored are- **Jacobi iteration, Gauss-Seidal iteration, Parameterized iteration and Successive Over-Relaxation method.**
--**Developed algorithms in Scilab and MatLab (both are softwares for numerical computation)** to model the above mentioned iterative solvers. These algorithms and the mentioned software were used to examine the time required by each and every solver to approximate the solution. A diagonally dominant, 100x100 matrix was used to observe this.
--Learnt mathematical concepts such as Maximal Norms in order to carry out **Convergence analysis** (Proof that a diagonally dominant square matrix converges using these solvers).

COMPUTER SCIENCE EXPERIENCES

Project to reduce drop out rates in primary and secondary schools in India, which is currently at about 50%. 2016
Developed an Information Technology and Computer Devices based model that will make education in primary and secondary schools free and improve the quality of education.
-- Students from lower income families drop out of school, as they cannot afford the books, tuitions and due to incapability of most teachers.
-- The project provides solution adapted from the technology used for online courses. Three components of the solution- A government portal will host textbooks and supporting videos, with free access. The low cost tablet to access the portal will be provided free to the students by the govt. A stripped down version of the tablet limited only to access this portal and play videos will ensure it is of low cost. The free Internet (using a SIM card) would be provided free of cost by an Internet Service Provider in exchange for the huge captive audience for advertisements.
-- **The Human Resource Development Ministry of India has acknowledged the project and has shown interest in the project.**
-- Wrote an article- 'Open Letter to the Prime Minister From a Teenager of India', to bring the problem and its solution to the PM's attention. The letter appeared in the Economic Times of India, a leading newspaper in the country, on Feb 23rd 2016

Employee management and payroll system (Part of the IB Computer Science HL Internal Assessment)- 2015-16
--Developing a software to manage the employee data and their salaries in an organization.
--The software uses a database to store all the employee data and salaries over time, and generates various reports using analytical cubes
--The software incorporates the concepts of Object Oriented Programming such as abstraction, encapsulation, polymorphism and inheritance.

Extended Essay In Computer Science 2016-17
-- This extended essay is an exploratory study of **security systems implemented in wireless networks** and a comparison of two types of security systems: Wireless Protected Access 2 (WPA2) and Wired Equivalent Privacy (WEP)

COURSES IN COMPUTER SCIENCE, outside the IB curriculum **2015-16**

Courses on Coursera:
--- **Programing Android applications for Android handheld Devices-Part 1.** Offered by Maryland University.
Certificate at: https://www.coursera.org/account/accomplishments/records/Q3PMDYNF2Na4z99P

-- Programming Android applications for Android handheld Devices-Part 2. Offered by Maryland University.
Certificate at: https://www.coursera.org/account/accomplishments/records/WwU6ZvJgM3hWqAjV
-- **Algorithmic Toolbox** offered by University of California San Diego. – About Algorithms, their logic and use. Scored 93.5%
-- **Computer Science 101** offered by Stanford University. Scored 99%.

--Completed course in **Advanced JAVA.** Offered by NIIT (National Institute of Information Technology) with Oracle certification.

RESEARCH in IB CURICULLUM: (Includes extended essay and internal assessments) **2016**

In Mathematics

-- Explored the **mathematical concepts of RSA Encryption**, which is considered a very secure method of encryption and is used by banks and ecommerce websites to exchange highly confidential information such as credit card numbers and account numbers.

In Physics

--Designed an experiment to find the relation between the salt concentration in water and it's resistivity.

LEADERSHIP POSITIONS

Started a Computer Science Club in High School. No computer science club in school till 2015 **2016**
-- Prepared the plan and structure of the club. Convinced the Head of School and teachers to start the club.
-- Developed website to host academic material, interesting articles, blogs. **2013-14**
-- The website serves as a forum where students can seek help on various computer science topics.

Captain of the inter-house cricket team in 9th grade.
Lead the team to the semifinals.

COMMUNITY SERVICE **2016**

Worked along with my classmates to install a **Bio gas plant for a school** in a tribal village in the rural area of Maharashtra province.
-- This Bio gas plant provides cheaper fuel to cook meals for the school students.
-- This project took 30 hours to complete.

QUIZZING AND MUN

Quizzing:
-- Participated in quiz competitions every year from the 8th grade. *Won an intra-school quiz in 9th grade.* **2012-14**
-- Represented my school SIS, in 11th Grade, at the inter-school science quiz. **2015**
-- Runner Up in grade 12 Inter House Quiz Competition **2016**

MUNs and Round Square Conferences
-- Participated as delegate in MUN Feb 2016.
-- Participated as delegate in Round Square Sept 2015.

CULINARY INTERESTS

-- Taste variety of foods in gourmet restaurants. **2014-16**
-- Write reviews of the restaurant and the food on review websites like Zomato.com

SPORTS

-- Squash: Played Squash at national level. *Ranking- 80 (in India in U-19 category)* **2009-16**
-- Cricket: Was in school cricket team from 6th till 10th Grade. Played in the Under 14, Under 16 tournaments of the state. **2009-14**
-- Swimming: Participated in inter-house tournaments. Won a bronze and silver in free style 50 mtrs. **2009-12**

OTHER INTERESTS

--Programming – never tired of developing a new program or finding bugs in other's programs. (I have a bug for it ;-))
--Keenly follow Manchester City Football Club
--Big fan of the Indian Cricket team
--Like to open gadgets and check how they work. Like to repair gadgets.
--I like to learn about new and interesting developments and innovations taking place all over the world such as those in 3D printing and Artificial Intelligence.
--I like to stay up to date with all new and upcoming consumer tech such as smartphones, laptops, desktops, routers etc.
--I like to watch TV series such as The Simpsons and the Big Bang Theory amongst others, along with movies such as Interstellar and Whiplash