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Chemical Engineering
Indian Institute of Technology Bombay

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UG Third Year (B.Tech.)
Male
DOB: 14-02-1997

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2017	7.31
Intermediate/+2	CBSE	Maharishi Int. Res. School	2014	97.20
Matriculation	CBSE	Maharishi Int. Res. School	2012	10.00

PROFESSIONAL EXPERIENCES

IN-PLANT TRAINEE AND INTERN | Piramal Enterprises, Healthcare division [Jun '16]

Guide: Mr. L. Suresh – Chief Manager, Engineering (Pharma Solutions)

- Studied and analyzed all the components of the plant including the Utilities plant, Safety, R&D, Production plant, Quality, Treatment Units in one of the **World's Top 5 Custom Manufacturing Companies**
- **Increased the efficiency** of the biomass boilers by a new and optimal use of oxygen from the nitrogen plant

OPERATIONS INTERN | CR2 Technologies Ltd. (Product – Medbox) [Dec '15]

Guide: Mr. Suyash K – Cofounder & CEO, b2c digital Pvt Ltd (Medbox)

- Created a presentation on the **App flow** and **UI enhancements** and presented it to the Tech team
- Executed a comparative analysis with competitors' apps and suggested changes to gain a market edge
- Prepared a **comprehensive analysis** of around 1200 calls and presented it to the Management

TECHNICAL PROJECTS

BIOSYNTH | Producing biodiesel from an autonomous biodiesel producing unit at institute level

Guide: Prof. Sanjay Mahajani, Department of Chemical Engineering [May '15 – Jun '15]

- Studied Bio-diesel and conducted a literature survey on the processes of water-washing and glycerolysis
- Optimized reaction parameters like temperature, reaction time using **Taguchi method** complying to **ASTM**
- Made a presentation using **graphical analysis** that stood out from the rest with a team of 4
- Selected for the **future Biosynth team** of 21 students to conduct plant runs based on overall performance

MODELLING BIO-GASIFIERS | Guide: Prof. Sanjay Mahajani [May '16 – Present]

- Performing a comprehensive Literary Survey to acquaint myself with state of art research done in bio-gasifiers
- Coding a MATLAB model for bio-gasifiers and optimizing the existing design based on experimental data

NANO-INDENTATION OF HUMAN HAIR | Nano-indented cosmetic-applied male/female Human hair

Guide: Prof. Prita Pant, Department of Metallurgy and Material Science [May '15 – Jun '15]

- Performed **Nano-indentation on Human hair** considering **Gender and Cosmetics applied**
- Nano-indentation is the process of indenting Nano-sized holes in a material to determine its **material properties** by measuring its hardness and the force applied on it
- Handled and operated the Nano Indenter and learnt the basics of nano-indentation under guidance of experts
- Evaluated the **hardness of the hair samples** by keeping variables such as age almost constant

CLASSROOM FOR ALL | Defining the design parameters for a perfect classroom

Guide: Prof. G G Ray, Prof. N Sadhu (ID411 ergonomics - project) [Jul '15 – Nov '15]

- **Analyzed and Redesigned the classroom doors** so that they are more comfortable to utilize and Evaluated features to be added such as Temperature Modulation, Sliding Doors, Biometric etc.
- Proposed a **near-perfect design** of an ideal classroom that can **accommodate all types of people** especially considering the problems faced by people with disabilities
- Developed the set of **design parameters** and **features** to be included in the ideal classroom for **visually-challenged students** as a part of the overall project coordinating with a team of **5 members**

GRAPHING SCIENTIFIC CALCULATOR | Coded a Graphing Scientific Calculator using C++

Guide: Prof. Deepak Phatak, Prof. Supratik C (CS101 C++ - project) [Aug '14 – Nov '14]

- Ideated and developed an algorithm for the **graphing scientific calculator**
- Programmed the functions, **coded the parsing** in C++ in a 4 membered team
- Created the user interface using **graphics.h, Simplecpp** and **GTK** graphical packages for C++

TECHNICAL SKILLS

- **Programming languages:** C++, Python, C, SQL, HTML, CSS
- **Tools and Software:** MATLAB, AutoCAD, MS Office, SolidWorks, Illustrator, Photoshop, **ASPEN**

SCHOLASTIC ACHIEVEMENTS

- Currently pursuing a **minor degree in Design** from Industrial Design Centre
- Secured **State Rank 1** in Joint Entrance Exam (Architecture) of 150 thousand students [2014]
- Awarded **KVPY Fellowship(2013)** with an **AIR 181** out of **10000+** students who appeared from across the country on the basis of performance in a written test and an interview [2013]
- Shortlisted for Indian National Astronomy Olympiad Level-2 and AMTI level-2 (grade 9,10,12)
- Qualified for **INSPIRE scholarship** based on performance in class 12 (top 1% of country) [2014]
- Obtained **full marks in Mathematics** in the CBSE class 12 Examination [2014]
- Acquired a position in the **top 1% of TN state** in **NSEP** (National Standard Exam in Physics) [2013]
- Secured a position in **top 0.75%** in JEE-Advanced out of nearly 150 thousand students [2014]
- Achieved **99.88** percentile in JEE-Main out of nearly 1.5 million students [2014]

LEADERSHIP EXPERIENCES

INSTITUTE AQUATICS SECRETARY | Institute Sports Council [Mar '16 – Present]

- Elected by representatives of 8000+ students to **organize 11 events**, acquire sports goods and develop general pool infrastructure for members of the IIT Bombay Swimming Pool with a budget of **INR 0.3 million**
- **Leading the organization team** involved in conducting the 25th Swimming Gala, a 2-day state-wide swimming competition with more than 500 participants, managing a budget over **INR 0.2 million**
- **Procuring funds of INR 3 million** from alumni donation to build a new gym, team room and to extend pool

STUDENT MENTOR | Department Academic Mentorship Program [Mar '16 – Present]

- Responsible for **guiding and supporting a group of 7 sophomores** in their academic and co-curricular activities
- Selected as an academic mentor based on **strong peer review and overall performance** (70+ applicants)

TEACHING ASSISTANT | English Cabinet, Student Mentorship Program [May '16 – Present]

- Compiled interactive teaching material to be taught to 40+ students as part of a **pilot program(DUEL)** to improve English proficiency of students of first, second and third years
- **Teaching classes of 20** and prepared innovative after class activities to increase exposure to the language

DESIGN COORDINATOR | Azeotropy, Chemical Dept. Symposium, IIT Bombay [Jan '16 – Mar '16]

- **Designed the badges** for all the officials, coordinators, organizers and the judges involved in the symposium
- Prepared posters for various events of the Symposium for publicity resulting in **100% more likes** on facebook

HORIZONS COORDINATOR | Mood Indigo 2015 [Mar '15 – Dec '15]

- **Negotiated** with artists from **around the world** to organize **10+ events** with a team of **20+ organizers**; conceptualized and ideated **food-fest**, bringing a cultural dimension to food

EXTRA CURRICULAR ACHIEVEMENTS

- **Inter IIT:** 3rd in Water Polo ; 4th in 200m Individual Medley [2015]
- **Swimming Gala:** 1st in 4x100m Medley Relay and created a record ; 2nd in 100m Butterfly [2016]
- **YMCA:** Silver in 'B' division Water Polo league and selected for 'A' division Water Polo League matches [2015]
- **GMAAA:** Special mention in Water polo league playing with top Indian teams like the Central Railways [2015]
- Placed 4th (130+ participants) in **Swimathon** (Swam **20.5 km** in **12 continuous hours**) [2015]
- Fluency in **English**, working proficiency in **French**, elementary proficiency in **German**
- Participated in the Remote Control Plane and Remote-control bot competition making held in IIT Bombay
- Headed residential school's mess committee for 1.5 years handling a budget of **INR 180 million**
- Voted by 2200 students as **School Pupil Leader** to supervise school and hostel affairs

INTERESTS

Nanotechnology:

- Learnt the basics of Nanotechnology and Nano-indentation and found it extremely interesting

Mathematical Modelling:

- Enthusiastic about problem-solving and creating algorithms that helped tackling real life problems