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Aerospace Engineering  
Indian Institute of Technology Bombay

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UG Third Year (B.Tech.)  
Male  
DOB: 12/08/1999

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2020	6.52

## SCHOLASTIC ACHIEVEMENTS

- Secured **99.14 Percentile** in JEE Advanced 2017 out of *200,000* students
- Ranked in **Top 0.28%** in JEE Main 2017 out of *1.2 million* students

## TECHNICAL EXPERIENCE

**Threat Research Intern — Endpoint Security** May - July '19  
**CrowdStrike, Inc**

- Analysed & Documented CrowdStrike's Falcon behaviour upon detonating 14+ malicious files developed using Metasploit Framework's file-type exploit for .docs, .pdf, .ace files.
- Reverse Engineered malicious PE files** to identify malicious code using tools like IDA Pro, x64dbg, Wireshark, etc. and documented research with a detailed technical analysis
- Analyzed Metasploit's Evasion module also experimented various Evasion techniques with Shellter
- Prepared a New-Intern-Handbook for getting started with CrowdStrike's Falcon and Endpoint Security

## POSITIONS OF RESPONSIBILITY

- Events Coordinator — Entrepreneurship cell, IIT Bombay** Apr '18 - Jan '19
  - Worked at National Entrepreneurship Challenge to conduct **Nationwide competitions**
  - Attended entrepreneurial **conferences** for interacting with **50+ corporate heads** for networking
  - Contacted and collaborated with **60+** startups in IIT-B to establish a startup community
- Cultural and Events Coordinator — Mood Indigo, IIT Bombay** May '18 - Apr '19
  - Invited **20 artists from 10 countries** to exhibit international performances at Mood Indigo
  - Led a team of 15+ organizers that executed events in **International Music Festival (IMF)**
  - Negotiated with renowned Indian artists & clubs in Mumbai to showcase **12 Concerts in IMF**

## KEY PROJECTS

**Big Data Analysis — Data Analysis and Interpretation** Autumn '18  
Prof. Prabhu Ramchandran | Aerospace Department | IIT Bombay | Course project

- Analyzed the **Wisconsin data set for Breast Cancer** and built a statistical model using the tumor data
- The model made predictions using **Linear Regression** achieving a pre-defined level of confidence
- Analyzed data using various libraries like **Numpy, Pandas, Scipy** etc in **Python**

**Trajectory Modelling of Delta II 1920-10, ROSAT — Spaceflight Mechanics** Spring '19  
Prof. Ashok Joshi | Aerospace Department | IIT Bombay | Course project

- Designed the complete **ascent mission** trajectory of the four stages of **Delta II 1920-10**, writing comprehensive code in **Python** to find burn profile and the gravity turn at each stage
- Found out the optimal **orbital manoeuvres** taken by **ROSAT** to reach final orbit from point of release in actual mission time and made an simulation of the same

**Computation on potential flow theory — Fluid Mechanics** Autumn '18  
Prof. Aniruddha Sinha | Aerospace Department | IIT Bombay | Course project

- Used the concept of stream function to obtain and visualize the streamlines for **super-critical circulation** of a **rotating cylinder** in **Python** by superimposing results of doublet, vortex and uniform flow.
- Analysed and presented the effects of changes in parameters to the distribution of streamlines

## TECHNICAL SKILLS

- Programming** - Python, C/C++, JavaScript, HTML5, CSS3, Bash
- Softwares** - Vim, Git, GitHub,  $\LaTeX$ , Jupyter, AutoCAD, SolidWorks
- Security Tools** - IDA pro, OllyDbg, x64dbg, Metasploit, VMware, Wireshark, Nmap, Kali
- Security skills** - Malware, Vulnerability/Exploitation, Reverse Engineering

## EXTRACURRICULAR ACTIVITIES

- Spent **80+ hours** teaching basic Mathematics and English to underprivileged kids
- Successfully completed 15 day Mountaineering Adventure Camp, certified by JIMWS Sanasar, Learned rock climbing, rappelling, river crossing and Basic techniques of survival in various situation.
- Mentored Three team in EnB BuZZ, a B model competition which had participated by **100+** teams
- Mentored Three team in Code camp organised by codepromt, Internet Academy which had 130+ participants, students made an web app using **Flask, HTML, CSS**