Chandra Shekhar | **170070029**
Electrical Engineering | **B.Tech.**
Indian Institute of Technology, Bombay | **Gender: Male**
DOB: 04-05-2000

Examination	University	Institute	Year
Graduation	IIT Bombay	IIT Bombay	2021

ACADEMIC ACHIEVEMENTS AND SCHOLARSHIPS

- Secured **All India Rank 1153** in **JEE (Advanced)** among 170,000 candidates. [2017]
- Secured **All India Rank 1605** in **JEE (Main)** among 1.4 million candidates. [2017]
- Achieved an **All India Rank 604** in **KVPY (Kishore Vaigyanik Protsahan Yojna)**.
- Recipient of NTSE **(National Talent Search Examination)** Scholarship.

PROFESSIONAL EXPERIENCE

ENVERUS [April-June'20]
Coding Analyst

- Automated various company projects and documents using **C++** and **VBA** interface.
- Designed **macros** to **automate** various **presentations** in Powerpoint and **data processing** in Excel.
- Proposed **optimal logics** for problems like **sorting data points** and **mapping it** consequently.

IOCL [June'20-Present]
Technical and coding analyst

- Worked on the **optimal supply** of the **current demand** in the **corrosion** of **subsea pipelines**
- Worked on the **trade off** between the **Bracelet anodes** and **Impressed Current** CP systems and proposed **Bracelet anodes CP system** due to it's **low maintenance** in the **offshore region**.
- Designing a software which will **compute** various quantities of interest like **anode type**, **anode mass**, **anode dimensions**, **number of anodes** and finally **distance between two anodes** optimally.

TECHNICAL PROJECTS

Development of OCaml library [August-Present]
Guide: Prof. Kumar Appaiah *Course Project*

- Developing **OCaml** numerical library **Owl** using **functional programming**
- Introduced **functions** like **matrix multiplication** and **determinant** for the **Maths** modules in the **Owl**.

Heart Rate Monitor [September'18]
Guide: Prof. Siddharth Tallur *Course Project*

- Designed heart rate monitor circuit which is functionally similar to one used in **Apple Watch** and **Fitbit**.
- Used the **PPG (photoplethysmogram)** effect to detect the changes in **blood volume**.
- Used **Infrared LED** and **photo-transistor pair** to detect intensity of waves reflected from the pulse.
- Analyzed the resulting photo current on a DSO using **bandpass filter** and **inverting amplifier**.

TECHNICAL SKILLS

Languages C/C++, Visual Basic(VBA), OCaml.
Softwares MATLAB, LaTeX, ngSPICE, GNU Octave, AutoCAD, Solidworks, GNU Plot.

EXTRA-CURRICULARS

- Volunteered for teaching **mess workers** as a member of **NSS (National Service Scheme)**. [2017/18]
- Boarded a very large **crude ship**(**VLCC MT. Chryssi**) to familiarize with **mammoth systems** on board and **working environment** amongst **multi national crew**
- **Acted, Edited** and **Scripted** a **short film** made during **Freshiezza 2017**, IIT Bombay. [2017/18]