SOHAM BHARAMBE

3^{rd} Year Undergraduate
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Academic Qualifications

Year	Degree/Certificate	Institute	CPI/Grade
2021 - Present	B.Tech.	Indian Institute of Technology Kanpur	7.0/10
2021	HSC(XII)	St. Xavier's International School, Kalyan	88.5 %
2019	SSC(X)	Smt. Kantaben Chandulal Gandhi English School, Kalyan	87.2 %

Scholastic Achievements

- Secured **All India Rank 764** in **JEE Advanced 2021**
- Received Scholarship from **Maharashtra State Council of Examination** in 4^{th} grade

Key Projects

Portal for Market Research Firm / External Project / Client: Magna Intelligence (*Jun'23- Present*)

- Developed a code in python utilizing **openpyxl** to migrate the spreadsheet data from the client into **Postgresql Database**
- Designed and developed a web application for graphical representation of data in the form of **interactive** charts and tables by utilization of **Chart.js** and used **Bootstrap** and **Javascript** with **Django** as Backend for better customer satisfaction
- Developing an application to ensure only **authorised users** who have made purchases can have access to substantial data

Unified Portal for Hall Automation (*Jan'23- Apr'23*)
Course Project / Software Development and Operations / Instructor: Prof. Indranil Saha / CSE / IIT Kanpur

- Collaborated in a **10-member team** and successfully developed a web platform for **digitalizing Mess**, **Canteen**, **Booking**, and **Housekeeping Services** in the Halls of Residence at IIT Kanpur, enhancing transparency and minimizing paperwork
- Followed **Waterfall model**, documented **Software Requirements, Design, Implementation, Testing** & **User manual**
- Employed **Figma, HTML and CSS** for frontend development, **Django Framework** for backend development, **Django-Test Framework** for unit-testing and **Selenium** for integration-testing, ultimately attaining a test coverage of over **90%**

CSE Bubble : A Processor with single-cycle instruction execution. (*Mar'23- Apr'23*)
Course Project / Computer Organization / Instructor: Dr. Urbi Chaterjee / CSE / IIT Kanpur

- Built **CSE Bubble** Processor in **Verilog** implementing instructions similar to **MIPSs' logical, arithmetic and jump** statements using **Finite State Machine** for control signals such that each instruction is executed in a **single clock cycle**
- Successfully developed and executed the **Bubble Sort code** in **Assembly Language** for an integer array on **CSE Bubble**

Basis of Learning / Science and Technology Council / IIT Kanpur (*May'22-Jul'22*)

- Created a **Perceptron** using **Numpy**, grasping the intricacies of **Machine Learning** through this hands-on implementation
- Implemented a **Feedforward Neural Network (FNN)** using **Numpy** and **Pandas** which achieved an accuracy of **0.99**
- Utilized **Keras** to implement **Recurrent Neural Network (RNN)** achieving an accuracy of **0.9** on **minst_784** dataset
- Utilized **Python, Tensorflow** to implement **Convolutional Neural Network (CNN)** and achieved an accuracy of **0.99**

Python and it's common uses / Association for Computing Activities / IIT Kanpur (*May'22- Jul'22*)

- Used **Python argparse** library to make command line utilities such as **dir, mkdir, grep, find** and **cat** with some options
- Utilized **Beautifulsoup** for data scraping from official IIT Kanpur website and developed **Professor Search** with **Django**

Regression Analysis / Stamatics / IIT Kanpur (*Apr'22- Jul'22*)

- Applied Linear Regression on Coco-cola and Pepsi share prices and observed that they **converged to mean** with R2 of 0.89
- Learnt and skillfully applied **Non-Linear, Panel-Data** and **Time Series Regression** on datasets acquired from **Kaggle**

Technical Skills

- **Programming Languages:** C, C++, HTML, Python, Verilog, LaTeX, MATLAB (basics)
- **Softwares:** Git, Anaconda, MS Excel, Figma, Fusion 360, Autodesk Inventor

Relevant Courses

Software Development and Operations	Computer Organisation	Logic from Computer Science
Probability for Computer Science	Discrete Mathematics	Data Structure and Algorithms
Introduction to Electronics	Linear algebra	Ordinary Differential Equations
Fundamentals of Computing	Real Analysis	Introduction to Logic

Extra-Curricular Activities

- Anime Society: Helped organize events and design posters and videos for the same
- Reading novels, listening to music, making things (for example origami)