

## INTERNSHIPS

---

### Software Intern, MAQ Software

(May-July'19)

MAQ Software delivers innovative software solutions for Fortune 500 companies

- Worked on the localization of **Pehla Class** which is based on Onecourse, an award-winning educational **Android** application
- Developed Python scripts to automate application localization for supporting Hindi language
- Worked on the UI of the CCI, a learning Android application for children

### Software Development Intern, GreatFour Systems

(December'18)

GreatFour Systems is an innovative product development company specializing in automation solutions

- Tested limitations of tools **PDFlib**, **Tabula** and **Camelot** for detection of tables in PDF file
- Designed an **OpenCV** algorithm for detection of tables in **Medical Leaflets**

### Machine Learning Intern, SmartMedics

(May-July'18)

SmartMedics is a technology driven healthcare platform integrating offline and online access to healthcare

- Worked on developing a health assistant that uses real data, **Machine learning** and **Neural Networks** to predict the specialist a patient must consult based on the data entered by him
- Used **Python NLTK** library for **Natural Language Processing** to process the problem description entered by patient and extract important details from text
- Designed a **Django** based Web application for doctors

Toppr is an online learning platform, personalizing K-12 education

- Helped building high-quality learning content like **questions** and **concepts**
- Improved the quality of content by analysing and making them **error-free**
- Helped team in building various **tests** by analysing current **curriculum** and previous year **question papers**

## COURSE PROJECTS

---

### Online Evaluation Web Application

Database and Information Systems

Guide: Prof. S.Sudarshan

(Autumn'18)

- Created **ReactJS** web app for students, instructors and Teaching Assistants
- Integrated **SSO Login** of IIT Bombay in the app
- App displays marks, question paper and answer sheet of every exam to student and sends the queries of student regarding marks awarded to particular answer to Teaching Assistant and Instructor
- Provided instructor and Teaching Assistant with feature of scanning and evaluating answer sheet of students
- App displays notification to instructor and Teaching Assistant regarding students' query

### Neural Networks Library

Artificial Intelligence and Machine Learning

Guide: Prof. Ganesh Ramakrishnan

(Autumn'19)

- Developed a deep-learning library from scratch, having modules of **Fully Connected Layer**, **Convolution Layer**, **Pooling layer** along with an appropriate loss function for backward propagation
- Used the built library to design a neural network architecture and tested it on **MNIST** and **CIFAR-10** datasets

### Python based Electrical Circuit Simulator

Software Systems Lab

Guide: Prof. Kavi Arya

(Autumn'17)

- Developed a compact electrical circuit simulator using **Python** and **Jython** for creating a Java-based GUI
- Used functions from **SymPy** and **SciPy** to solve the differential equations
- Generated a graph between various parameters based on the input signals using **Matplotlib**

### Compiler for a pointer language with C like semantics

Compilers

Guide: Prof. Uday Khedkar

(Spring'19)

- Implemented **lexical analyser**, **abstract syntax tree** and **symbol table** for effective translation to **assembly code**
- Provided support for boolean and arithmetic operators, nested conditional statements and function calls

## Railway Signal Controller

Digital Logic Design

Guide: Prof. Supratik Chakraborty

(Spring'18)

- Implemented and simulated the model using **VHDL** with backend implemented on **C**
- Used **FPGALink** library for transfer of data via a USB cable between the host and the FPGA board
- Implemented **TEA encryption** to secure the messages sent over channel

## Tetris Game

Programming Paradigms

Guide: Prof. Amitabha Sanyal

(Spring'17)

- Built a graphical game of **tetris** using the **Racket** programming language
- Implemented **heuristic algorithm** to hint the player which move should be played at each turn to reduce number of empty spaces in accumulated blocks
- Used teachpack **universe.rkt** to provide functionality for creating interactive and graphical programs

## ACADEMIC ACHIEVEMENTS AND SCHOLARSHIPS

---

- Secured **98.65** percentile in **JEE Advanced** (IIT-JEE) out of 150,000 candidates (2016)
- Recipient of the **NTSE** (National Talent Search Examination) Scholarship by N.C.E.R.T New Delhi (2014)
- Secured **All India Rank 40** in **International Olympiad of Mathematics** (2012)
- Secured **District Rank 1** in Maharashtra Talent Search Examination (2012)

## EXTRACURRICULARS

---

- Participated in **Kavyasandhya** General Championship (Inter Hostel poetry recitation competition) (2017)
- Completed an intermediate level **Bootcamp on Entrepreneurship** (2017)
- Successfully completed one year as a **Bandminton** Player under National Sports Organisation (2016-17)
- **Runner-up** in music video competition of Freshmen Cultural festival, IIT Bombay (2016)
- Helped in organizing **CURED**: a diabetes awareness campaign (2016)