Payal Choudhary

Metallurgical Engineering & Material Science

Indian Institute of Technology Bombay

190110061

UG Second Year

Female

DOB: 26-10-2001

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2021	0.00

Awards and Recognition

- Awarded the **Institute Technical Freshmen Of The Year** (1 out of 1100+)for exemplary tech activities *[2020]*
- Received a **Special Mention** in the field of Social Services by **NSS, IIT Bombay** for helping underprivileged children explore the wonders of science by conducting experiments and explaining related concepts *[2019]*
- Felicitated with the **Annual Excellence Award** at St.Xavier's School for the Academic Year 2016-2017 *[2017]*

Work Experience

JUNIOR DEVELOPER | ABS Tech   *[July '20 - Aug '20]*
- Developed an **android application** that enables users to edit pictures from camera and gallery
- Made the code robust by incorporating features such as **Dagger**(Dependency Injection) and **Butterknife**
- Integrated third party libraries like **Dexter** and **ImageFilters** and tested application using **Junit** framework

Development Projects

SAFE: SMART AUTHENTICATED FAST EXAMS   *[Aug '20 - Present]*

Research and Development project | Prof. Bhaskaran Raman | Computer Science Department | IIT Bombay

Context of the Project: Safe is an **android application** having **10,000+** downloads that caters to secured assessments, proxy-free attendance, and offline quizzes in IIT Bombay

  Proposed Work :
- Developing algorithms to ensure **time synchronization** and prevent **time-based attacks**
- Extensive involvement in **usability testing** and detecting **logical vulnerabilities** of the application

InFi-INTEREST FINDER | Institute Technical Summer Project | IIT Bombay   *[Jun '20 - July '20]*
- Conceptualized an **android application** which connects people based on **interests and hobbies**
- Deployed the backend in **Firebase**, frontend in **Android(Java)** and **XML**, used **Google API** for location
- Implemented **Collaborative Filtering** to suggest people based on shared interests, distance, and activity
- Incorporated features such as **Paging** and **ViewModel** resulting in **+10%** increase of the efficiency

TRIDENT SERVICES | Hostel 15 | IIT Bombay   *[July '20- Present]*
- Conceptualizing and developing an **android application**, including the UI Core, aimed at **digitizing** the queue management system of the laundry services to accommodate the needs of 1000+ hostel residents
- Applied **real-time analysis** for maintaining queues and suggesting devices with the least waiting time
- Used **FireBase** for authentication, real-time database and **Cloud Messaging** for sending notifications
- Expecting over **1000+** downloads and an increase of about **40 percent** in the efficient use of machines

MOOD INDIGO TECH PROJECT   *[Aug '20- Present]*

Mood Indigo | Asia's Largest Cultural Festival | Footfall 1,46,000+ | Events 240+
- Assisted in developing an android application to be downloaded by over **50k+** people attending the fest
- Implemented **Google API** for fetching real-time location and providing direction maps to the users
- Integrated **GitHub API** to upload **BLOB** (binary large objects) after encoding it in **base64** string format
- Conceptualized implementation of new features such as customizable **Augmented Reality** characters

Hardware Projects

LINE FOLLOWER BOT | TechFest | IIT Bombay   *[Jan '19]*
- Engineered a bot with **5 IR sensors** capable of **tracing** white lines and **memorizing** any curved path
- Implemented a closed-loop **PID** algorithm using Arduino UNO for controlling L293D motor driver
- Took feedback from sensors to control the direction of bot using **differential** steering mechanism
- **Represented** IIT Bombay at **Meshmerize**, conducted by **Techfest**, Asia's Largest Technical Festival

OBSTACLE MANOEUVRING BOT | Electronics and Robotics Club | IIT Bombay   *[Aug '19]*
- Designed and built Bluetooth controlled **(HC-05)** robotic car with a differential mechanism for turning
- Used **AT-TINY** as the micro-controller, **IC7805** as a voltage regulator, and **L293D** as the motor driver

Positions of Responsibility

CONVENER | WEB AND CODING CLUB   *[Apr '20 - Present]*
- Conducted workshop on **Game Development** and organized competitions indulging about **100+** participants
- Volunteered to make resources on **Probabilistic Algorithms** for **Code in Quarantine** and **Algos-Simplified**
- Contributed towards **maintaining** the WnCC **WIKI** by writing articles on **Android Studio, MySQL**

MODERATOR | WEB DEVELOPMENT | CAREER CELL | UGAC   *[Aug '20 - Sept '20]*
- Mentored **300+** students in building a **Personal Website** and developing a **Food Delivery App**
- Prepared weekly tutorials and assignments on **Git, HTML, CSS, Bootstrap, JavaScript** and **Django**

Technical Proficiency

Languages	C | C++ | JAVA | Python | R | MATLAB | Android | Dart | HTML | JavaScript
Softwares	Git | Android Studio | ArduinoIDE | AutoCAD | SolidWorks | MIT Scratch
Frameworks/Libraries	CSS | Flutter | Pandas | Scikit-Learn | Seaborn | Fbprophet | Selenium