

ABHAY TRIPATHI

Second Year Student (B.Tech. CSE 2021-25)

- ❖ 4+ years of **Software Engineering** experience in the form of **practical projects, professional experience** (Projects and Professional Experience are **mentioned on next page**) and **data structures and algorithms problem solving**. Currently learning **C++**. Major skills exposure:
* **Java** * **Python** * **C** * **C#**
- ❖ 3+ years of **Full Stack Web Development** Experience (Developed and maintaining 2 Live **Websites** including the portfolio website, 2 Live **PWAs** and have done an **internship** for development of a **Web Portal** till date) in both **Front-End Technologies** and **Back-End technologies**. Proficient in **LAMP Stack (Linux, Apache, MySQL and PHP)**. Currently learning **NodeJS (Express Framework)** to become proficient in **MERN Stack**. Major skills exposure:
Front-End:
* **HTML, CSS** * **JavaScript, TypeScript** * **React.js Framework** * **Bootstrap Framework**
* **jQuery Framework** * **REST APIs** * **PWAs**
Back-End:
* **Apache, NGINX** * **Python Flask Framework** * **PHP** * **CGI (Python)** * **Web Sockets** * **REST APIs**
* **FastAPI Framework**
- ❖ 3+ years of **Native Android App Development** Experience (Developed 4 **Phone Apps** and 1 **App for both Phone and Android TV** till date and maintaining 1 Live App on **Play Store**). Major skills exposure:
* **Android Java SDK** * **Android UI Layouts XML**
- ❖ 3+ years of **Database Management** Experience (Developed 2 **Full-Stack Projects** and worked on 1 **Full-Stack Project** as an **intern** till date). Major skills exposure:
* **MySQL (SQL)** * **MariaDB (SQL)** * **MongoDB (NoSQL)** * **Firebase Realtime Database (Google Cloud)**
- ❖ 2+ years of **Cloud Hosting** Experience (Currently hosting and maintaining 1 **AWS EC2 Instance** under the limits of Free Tier which hosts 1 **Full-Stack Project**). Major skills exposure:
* **AWS EC2 Instance Hosting** * **Google Cloud Functions** * **Heroku Web App Hosting**
- ❖ 1 year of **Virtual Reality (VR) App Development** Experience (Made 2 **VR Apps** till date). Apps tested in **Oculus Quest** and **Quest 2 Headsets**. Major skills exposure:
* **Unity Game Engine** * **Oculus SDK**
- ❖ Developed a small **custom protocol server** using **TCP** in **C**, and the **client app** for the same in **Java**. Have worked with **Web Sockets** also for some small projects.
- ❖ Have practical knowledge of **cryptography** with project-based experience of **hashing algorithms** like **SHA-256, MD5**, etc. Have used hashing for "**salting**" while developing authentication systems.
- ❖ Created a new **Hybrid Encryption/Decryption Algorithm** (Modified **RSA** for the **asymmetric** encryption/decryption part and created own algorithm for the **symmetric** encryption/decryption part). Made **modules** for usage of the algorithm in **Java, Python and JavaScript**.
(GitHub Link for Java Module: <https://github.com/abhaytr/JMulticrypt>)
(Link for Online Demo: <https://abhaytr.github.io/multicrypt>)
- ❖ Developed various **PC UI Apps** in **Java** and **Python**. Major skills exposure:
* **Java Swing Framework** * **Python TKinter Framework**
- ❖ Developed various **modules/packages** for various functionalities in **Java, Python, JavaScript and C**. All of them are **open source** and are available on **GitHub**.
(**Python modules** available on **PyPi** also)
(**PyPi Profile**: <https://pypi.org/user/AbhayTr>) (**GitHub Profile**: <https://github.com/AbhayTr>)
- ❖ **HackerRank: 5★ 30 Days of Code Badge, 4★ Problem Solving Badge.**

PROFESSIONAL EXPERIENCE

Jan-2023 –
Mar-2023

Manipal University Jaipur,
Full Stack Web Developer (Internship)

Jaipur (India)

- Worked on the development of the **HR-Employee Appraisal Web Portal** which will be used to conduct the **appraisal process** of the employees in **Manipal University Jaipur**.
- Used **ReactJS** for the **front end** of the **web portal**, **Python (Uvicorn)** and **Rest APIs (FastAPI)** to power the **back end** of the **web portal** and **MongoDB** as the **database** for the **Web Portal**.
- Made the **Web Portal highly secure** by **patching critical security loop holes**.
- **Re-Organized** the **Tech Stack** to make the **Web Portal highly fast** and **more efficient**.

SOME MAJOR PROJECTS (PROJECT BASED EXPERIENCE)

May-2020 –
Jun-2020

QueueScan

Gurgaon (India)

- An **app** through which virtual queues can be started anywhere with any QR code. Completely anonymous queues with no registration/KYC. Perfect solution for crowd management during times like Covid.
- Technologies Used: **Android SDK (for Android App)**, **HTML**, **CSS**, **JS for Frontend PWA**, **PHP for Backend of PWA**, **Firebase Realtime Database** for the Database.
- **Play Store Link:** <https://play.google.com/store/apps/details?id=com.tw.qscan>,
PWA Link: <https://queuescan.com>.

Feb-2021 –
Mar-2021

DigiFriend

Gurgaon (India)

- DigiFriend is your virtual friend which makes your phone feel like any modern-day smart device (Amazon Alexa, Google Home, etc.). Just open the app, and keep talking with it without pressing any buttons!
- Technologies Used: **Android SDK (for Android App)**, **Android TTS (Text to Speech) Service** for Voice Input from the app user, **AWS EC2 instance** to host the app, **NGINX** and **Python Flask Framework** for the **Backend**, **MySQL** for the database.
- To know more about the app and to try the app, please visit <https://abhaytr.github.io/digifriend>.

May-2022 –
Jun-2022

TeleOperation (TeleSurgery)

Jaipur (India)

- **VR App** which is made to demonstrate the Proof of Concept of TeleOperation. The concept of TeleOperation is ideated and developed by Mr. Akshet Patel (LinkedIn: <https://www.linkedin.com/in/akshetpatel/>). The concept of TeleOperation is basically the ability to control physical mechanical devices such as a robotic arm virtually in real time using remote technologies such as a VR App.
- Technologies Used: **Unity Game Engine** and **Oculus SDK (C#)** for the **VR App**. Deployed the app to **Oculus Quest** and **Quest 2 Headsets**.
- To know more about the concept, please visit <https://github.com/AbhayTr/TeleSurgery-A-Proof-of-Concept>. To see the demonstration of the VR App, please watch <https://www.youtube.com/watch?v=65jHtXySaQw>.

To see all projects, please visit the GitHub Page (<https://github.com/abhaytr>).

ACADEMIC QUALIFICATION

Second Year Student of “Bachelor of Technology” (**B.Tech.**) degree in “Computer Science and Engineering” (**CSE**), pursuing from **MUJ** (Manipal University Jaipur), Rajasthan (INDIA) from **2021** to **2025**. **CGPA (Grade)** till date: **7.76 / 10**.

PROFESSIONAL CONTACT DETAILS

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