ABHAY TRIPATHI

in @abhaytri | ⌨ @abhaytr | 🌐 abhaytr.github.io | ✉ abhay-tripathi@live.com | ✆ +91 8800958568

Skills

- ❖ Java | Python | C# | C | JavaScript | TypeScript | Node.js | React | Express | PHP | Linux | Apache | NGINX | MySQL | MongoDB
- ❖ HTML | CSS | Bootstrap | jQuery | Flask | FastAPI | MariaDB | Bash | Web Sockets | REST APIs | CGI | CDN | TensorFlow | OpenCV | PyTorch
- ❖ Android Development (Java SDK) | Unity | Oculus SDK (VR) | Java Swing | TKinter | PyGame | AWS EC2 | Firebase | MVC | Design Patterns | Git
- ❖ Full-Stack Development | Android Development | VR Development | SQL | NoSQL | Cloud Hosting | Cryptography | TCP - IP Networks | SQLite

Experience

IT Infrastructure Lead **and Software Engineer**	**Youth4Nation Foundation**	**May 2023 – Jul 2023** **Delhi (India)**

- ❖ **Created an online presence of the Organization** by **designing and implementing the Organization's Tech Stack** (**E-Mail Hosting**, **Web Hosting**, **Payment System**, etc.) and **developing the Organization's Website**, and **optimized it for SEO**.
- ❖ Designed and developed a **Member Enrolment System Software with ID Card Facility** which is being used to enrol **1000+ existing Members and all future Members**. Developed an **Online Payment System** using existing solutions.
- ❖ Developed a **Member E-Mail OTP Based Authentication** and **SHA-256 and Salting based Session System**. Designed and developed a **Secure Authorization based CDN** to **store digital photos of the Members** of the Organization **securely**.
- ❖ Designed a **Stateless Reference Code Generation Algorithm** and developed a System to use the same using which Reference Codes can be generated for letters issued by the Organization, which can later **verify authenticity of the issued letter**, hence **providing credibility for the letters issued by the Organization**.
- ❖ **Technologies Used**: **LAMP** (**Linux**, **Apache**, **MySQL** and **PHP**) Stack, **Bash**, **HTML**, **CSS**, **Vanilla JavaScript**, **Bootstrap**, **jQuery**. Developed an **Automatic Mailing System** for **sending professional emails** using **Python**.

Full Stack **Web Developer**	**Manipal University Jaipur**	**Jan 2023 – Mar 2023** **Jaipur (India)**

- ❖ Worked on the **development of the HR-Employee Appraisal Web Portal** which is being used to conduct the **appraisal process** of **500+ employees and professors**. 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**.
- ❖ **Technologies Used**: **HTML**, **CSS**, **React.js**, **Bash**, **Python (Uvicorn Server)**, **REST APIs** (developed using **FastAPI**), **MongoDB**.

Projects

- ❖ **FaceTrack**: AI Based Facial Attendance Web App used to mark attendance based on facial data of the students. Link to project. (**OpenCV**, **Python**, **Web Sockets**, **HTML**, **CSS**, **JS**, **Bootstrap**, **OpenCV.js**). [**Jan 2023**]
- ❖ **TeleOperation**: VR App which is made to demonstrate the Proof of Concept of TeleOperation which was ideated by @akshetpatel. TeleOperation is the ability to **control mechanical devices virtually** using remote technologies. Link to demo video. (**Unity Game Engine**, **Oculus SDK (C#)**, **TCP Connections**). [**May 2022 – Jun 2022**]
- ❖ **DigiFriend**: App which makes your phone like a smart device. Simply keep talking without pressing any buttons. Link to download app. (**Android SDK**, **TTS Service**, **AWS EC2**, **NGINX**, **Flask**, **MySQL**). [**Feb 2021 – Mar 2021**]
- ❖ **QueueScan**: App for starting virtual queues with any QR code, completely anonymously with no registration/KYC. Link: queuescan.com. (**Android SDK**, **HTML**, **CSS**, **JS** for **PWA**, **Firebase**). [**May 2020 – Jun 2020**]

Education

Third Year Student, **Bachelor of Technology** in **Computer Science and Engineering** (**CSE**),
Manipal University Jaipur, **Rajasthan, India - 2021** to **2025**. **CGPA** (**Grade**) till 2nd Year (4th Semester): **7.69 / 10**.

Certifications, Achievements and Other Details

- ❖ Goldman Sachs Virtual Engineering Program | Object Oriented Programming in Java (by UC San Diego) | Data Structures (by UC San Diego).
- ❖ **HackerRank**: **5★** 30 Days of Code Badge, **4★** Problem Solving Badge, **3★** Java. **Developed multiple modules** in **C**, **Python**, **Java** and **JavaScript** for various utilities and functionalities (GitHub Link, PyPi Link, Portfolio Website Link, HackerRank Link).
- ❖ Developed MultiCrypt Algorithm for Secure **Hybrid Encryption** (**Modified RSA** + **Own algorithm for Symmetric Encryption**).
- ❖ Developed a small level **Custom Protocol** on **TCP**. Developed **Server** for the same in **C** and **Client** for the same in **Java**.