

Akshit Verma

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Academic Qualifications

Year	Degree	Institute	CPI/%
2020 - Present	B.Tech	Indian Institute of Technology, Kanpur	8.7/10
2020	CBSE(XII)	Academic Global School, Gorakhpur	95.4%
2018	CBSE(X)	Aatmdeep Vidyalaya, Gorakhpur	91.6%

Work Experience

- **Intern at VakilLab** (Jan'22 - Present)
 - Website aimed at automating lawyers' work.
 - Uses a REST backend written in **Django** backed by a **PostgreSQL** database.
 - Uses **Firebase** email and password method for user authentication.
 - Uses **Google Calendar and Tasks API** for maintaining user's tasks which used **OAuth2.0** for authentication.

Key Projects

- **RustDuino** (Project Link: <https://github.com/Mshivam2409/rustduino>) (May'21 - July '21)
Mentor: Shivam Malhotra, Coordinator, Electronics Club, IITK
 - Developed a **Rust Crate** for *Arduino Microcontroller* and several sensors (*gyro, thermal, ultrasound, etc.*) and devices (*Shift Registers, Displays, etc.*).
 - A custom **Hardware Abstraction Library** for *Atmel ATmega328p* and *ATmega2560p* microchips and implemented various communication protocols **UART, USART, I2C & TWI**.
- **Amuse-ic** (Self Project) (Project Link: <https://github.com/vakshit/amuse-ic>) (Jun'21 - Sept'21)
 - A Discord Bot loaded with the features of a fully functional music player, allowing the members to play and queue multiple songs, edit the queue, save it as a curated playlist and store unlimited playlists for a server.
 - Built using **MongoDB, BeautifulSoup4, Discord API, Spotify API** and **YouTube API**.

Technical Skills

- **Programming Languages:** Python, Rust, JavaScript, C, C++.
- **Web stack:** Next.js, React.js, Rocket(Rust), Django, Node.js, Express.js, MongoDB, PostgreSQL, GraphQL, REST API, ejb.
- **General:** Linux, Git, ROS, OpenCV, Shell Scripting.

Positions of Responsibility

- **Secretary, Web Division, Academics and Career Council** (September '21 - Present)
 - Responsible for developing and maintaining the **AnC Resources Portal**.
 - The portal is improved by replacing the hardcoded data with a backend written in **Rust**.
 - The student side is deployed, rewritten in **React.js** with **TypeScript** and the admin side being written in **Next.js** with **GraphQL** as the query language while data fetching done by **Relay** and **Apollo** respectively.
 - Implemented Authentication System using **Ory Kratos** and Role Management using **Ory Keto**.
- **Junior Member, Aerial Robotics** (April'21-Present)
 - Developed a ROS Package implementing the CSR-DCF Tracker in C++ using OpenCV to track objects in the Region of Interest.
 - Implemented an algorithm for global pose estimation of Husky using camera feed and libraries including Eigen for coordinate transformations.

Relevant Courses

- **30 Days of Google Cloud** (September '21 - October '21)
Creating and managing cloud resources with Kubernetes in Google Cloud
- Web Development Bootcamp, Udemy
- Software Foundation Course, e-Yantra, IIT Bombay (May '21 - June '21)

Extra-Curricular Activities

- Team Leader of one of the top 10 teams in **TechWeek'20**, the intra-IITK Science and Technology Championship.
- Participated in several competitions including SnT Code, Astro Quiz, Elevator Pitch and Cobot-19.