

# Harshit Kumar

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## EDUCATION

**B.Tech** - 2023

Computer Science  
Engineering,

Jaypee Institute of  
Information Technology,  
Noida, India

**Senior secondary (XII)** -  
2019

CBSE

**Secondary (X)** - 2017

CBSE

## SKILLS

**Languages**

JS/TS, Dart, GO, Java,  
Kotlin,

**Frameworks and  
Technologies**

Linux, Flutter, Node.JS,  
FFmpeg, WebRTC,  
Websocket

## LINKS

[Website](#)

[Github](#)

[LinkedIn](#)

[Dev.to](#)

## WORK EXPERIENCE

### Software Developer | Grappus

March 2023 - present

- **Client Projects:** Developed multiple client products, tailoring solutions to meet diverse requirements through effective brainstorming and collaboration.
- **Hackathon Success:** Delivered a production-ready app during a company wide 72-hour hackathon, resulting in ~90% time efficiency.
- **AI Hiring Solutions:** Contributed in an internal AI-driven interview and hiring dashboard backend service & helped clients with installation of sdk resulting in **higher adoption rate**.
- **Side Projects:** Created engaging games with the Flutter engine and built robust servers using Node.js and Go, demonstrating technical versatility.

### Flutter Developer Intern | Finplify

January 2023 - March 2023

- **Cross-Platform Development:** Solely developed a **Fintech** mobile app for iOS and Android using Flutter for an early stage start-up of 5 people.
- **Investor Relations:** Actively participated in fundraising events, presenting product briefs to potential investors and securing interest in the startup.
- **Key Partnerships:** Collaborated with Razorpay and Digio KYC team to integrate their SDKs, enhancing app functionality.
- **Automated Deployment:** Implemented a CI/CD pipeline with Fastlane, streamlining the deployment process for the Play Store and App Store.

### Software Developer Intern | EvrFin

April 2022 - December 2022

- Developed an Android app and hosted on **Google Play Store**.
- Integrated the **MoEngage SDK**, a customer engagement platform.
- Integrated **AWS S3** in the app for storing confidential user data.
- Used **Retrofit** to make **Rest API** requests and **WebSockets** for real time data updates.

## PROJECTS

### Live Streaming Service [\[Streaming Platform\]](#) [\[RTMP SERVER\]](#)

*Live Video Streaming Service using Next.js and Go*

- Developed a Live Video Streaming Service using **Next.js** and **Go**.
- Built an **RTMP** ingress server taking inspiration from **LiveKit**
- Leveraged WebRTC peer-to-peer connections to enable seamless media streaming for users within a room, ensuring low latency and high-quality video delivery.
- Implemented stream **ingestion** and **transcoding** to make RTMP streams WebRTC-compatible and optimized **CPU** usage to reduce server **overhead**.
- Created custom **webhooks** to update stream publish status to users.

### Code Compiler [\[Git Repo\]](#)

*AOT Code Compiler using LLVM*

- Developed an **LLVM**-based Code Compiler for efficient generation and execution of **machine code**.
- Implemented key stages including **Lexical** Analysis, **Syntax** Parsing, **Semantic** Analysis, and **Intermediate Representation (IR)** Generation to ensure correctness and safety of the code.
- Applied optimizations like **constant folding** and **dead code elimination** to enhance efficiency and performance.
- Successfully compiled and produced executable binaries through **ahead-of-time (AOT) compilation**, tailoring them for specific target architectures.