

# Harshita Kalani

Final | Computer Science and Engineering | IIT Jodhpur  
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## EDUCATION

### Indian Institute of Technology Jodhpur, India

Bachelors of Technology in Computer Science and Engineering

Nov 2020 - May 2024  
Current CGPA: 8.4375/10.0

### Maheshwari Girls Public School, Jaipur

Secondary & Higher Secondary Education

June 2016 - April 2020  
HSC: 95.80% · SSC: 95.20%

## EXPERIENCE

### WARNER BROS. DISCOVERY | Kotlin Multiplatform (android and iOS) | SDE Internship

May - Aug 2023

Kotlin · Swift · Ktor · SqlDelight · SPM



- Demonstrated a compelling *proof of concept of Kotlin Multiplatform* by successfully onboarding the Playback Info Resolver (business logic to initiate the playback session for a requested asset by an user on a specific device) component of Player SDK into Kotlin Multiplatform and implementing the shared library for both Android and Apple Platforms.
- The shared library contains the Kotlin source code that transpiles into Swift, JavaScript and C++, demonstrating the practicality of cross-platform development.
- Developed, integrated and tested the PIR in both Android and Apple platforms.

### LFORTRAN | Numfocus | Compiler Developer

July 2023 - Present

C++ · C · Python · Fortran · Compiler Design



- Contributing to the development of LFortran, a modern interactive LLVM-based Fortran compiler.
- Enhanced compatibility of LFortran with **SciPy** codebase by making it compile 60% of all Fortran packages in SciPy, unmodified, and all SciPy tests pass. Continuing to work with LFortran, currently focussing on compiling another essential package **Stdlib**.
- Spearheading the implementation of essential elemental and array intrinsic functions, like leadz, min, merge and led initiatives to enhance error and warning handling procedures, resulting in a more robust system with improved fault tolerance and reliability.

## PROJECTS

### OCR Application | Dr. Pushpendra Singh

April 2022

Flutter · Dart · Google ML Kit · Text to Speech · Firebase · Firestore · Google Cloud Storage · Imgur API



- Developed a dynamic mobile application with OCR technology, enabling extraction of text from images and converting it to .txt, .mp3, and .csv formats seamlessly.
- Streamlined user experience through Google authentication, gallery & camera uploads, one-tap text extraction, and text-to-speech features.

### Covid-19 Detection using chest X-Ray | Dr. Richa Singh

April 2022

Python · OpenCV2 · Keras · Pandas · NumPy · Matplotlib

Dataset [E](#) | Website [E](#) |

- Trained deep learning models (e.g., VGG-19, EfficientNet B3, ResNET-50) to detect COVID-19 through chest X-rays. Achieved an accuracy of **96.4%** on the pre-trained U-NET model after performing lung segmentation using it.

## ACHIEVEMENTS

- **Physics Wallah:** Conducted career guidance workshops for JEE aspirants
- **Teaching assistant** in DSA, ML and currently OS course guiding 250+ students
- Advanced through all rounds of *Jumpstart hackathon* by **Publicis Sapient**
- Secured an **A (Outstanding)** in both **DSA** and **ML** course
- **Leetcode, GFGPractice and Interviewbit:** Solved 1000+ DSA problems

## TECHNICAL SKILLS

**Skills:** App Development, Full Stack Web Development, Competitive Programming, Machine Learning, Public Speaking | **Languages:** Python, C++, C, Kotlin, Swift, Fortran, Javascript, MySQL, LaTeX | **Frameworks:** Django, Flutter, ReactJS | **Miscellaneous:** Kotlin Multiplatform, Django, Flutter NodeJS, Git, HTML, CSS, MongoDB, Firebase, Github | **Libraries:** Pandas, NumPy, Matplotlib, Seaborn, Sklearn, PyTorch, Keras | **Platforms:** Android Studio, Xcode, Charles Proxy, VS code

## RELEVANT COURSEWORK

**Computer Science:** Computer Networks, Cryptography, Cyber Security, DSA, DBMS, OS, ML, AI, Blockchain

**Other:** Probability Statistics & Stochastic Processes, Mathematics for Computing, Macro and micro economics

## POSITIONS OF RESPONSIBILITY

- Served as **Head, NLP team, Inter IIT'23 at IIT Madras**
- Elected as **Head, Entrepreneurial Team, Prometeo'23**
- **Student Guide**, Student Well-being Committee, IITJ
- **Content Head and Mentor**, PHEME & core member of Music Society, IITJ
- Elected as **Assistant Head, Technical Team, Prometeo'22**.