

# Harshita Kalani

Computer Science and Engineering Graduate | IIT Jodhpur | Warner Bros. Discovery

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## EDUCATION

### Indian Institute of Technology Jodhpur, India

Bachelors of Technology in Computer Science and Engineering

Nov 2020 - May 2024

CGPA: 8.40/10.0

### 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 & iOS) | SDE I

July 2024 – Present

Python · Kotlin · AWS · GCP · GenAI · ML · Statistics · Swift · KMP · Espresso

- Delivered a production-ready **Kotlin Multiplatform (KMP)** implementation by onboarding the **Playback Info Resolver** of the Player SDK into a shared KMP module, enabling seamless Kotlin-to-Swift/JS/C++ transpilation and reducing platform-specific duplication.
- Built and deployed a **Google Notebook-style RAG system** on **GCP** that ingests documents, links, and Git repositories, enabling semantic search and LLM-based QA workflows using **Ollama** and vector retrieval.
- Designed and implemented a **scalable UI automation framework** using **Espresso**, improving test reliability and increasing regression coverage across playback surfaces.
- Developed and productionized an **anomaly detection pipeline** for playback telemetry, leveraging statistical modeling and ML techniques to detect QoE deviations and eliminate false positives across millions of events.

### GSoC | LFortran | NumFOCUS | Compiler Developer

July 2023 – Present

C++ · C · Python · Fortran · LLVM · AST/ASR · Compiler Design · Git · GitHub



- Contribute to the development of LFortran, a modern interactive LLVM-based Fortran compiler with an AST → ASR → LLVM IR pipeline.
- Improved LFortran's compatibility by enabling successful compilation of major Fortran packages including **Stdlib**, **Prima**, and 60% **SciPy** modules **unmodified**, with all tests passing for supported components.
- Implemented core **elemental**, **inquiry**, **array**, and **transformational intrinsic functions**, significantly expanding compiler completeness as a **Google Summer of Code 2024** contributor.
- Mentored new contributors on LFortran's architecture, PR development, code review, and onboarding workflows, strengthening the open-source compiler community.
- Represented LFortran at the international **GSoC mentor summit'25** in **Munich, Germany**.

## PROJECTS

### OCR Application | Dr. Pushpendra Singh

April 2022

Flutter · Dart · ML Kit · Firebase · TTS



- Built a mobile application using **Google ML Kit** to extract text from images and export it as **TXT, CSV, and audio (TTS)**.
- Implemented authentication, camera/gallery uploads, and one-tap OCR processing with Firebase integration.

### COVID-19 Detection using Chest X-Rays | Dr. Richa Singh

April 2022

Python · OpenCV · Keras · NumPy · Pandas

Dataset  | Website  | 

- Trained deep learning models (VGG-19, EfficientNet-B3, ResNet-50) for COVID-19 classification on chest X-rays, achieving **96.4% accuracy** after lung segmentation using **U-Net**.

## ACHIEVEMENTS

- **Gold Medalist**, IIT Jodhpur - awarded for best academic performance among female candidates in the CSE graduating class of 2024.
- Finalist at the **Publicis Sapient Jumpstart Hackathon**, advancing to the exclusive extravaganza round.
- Achieved **Gold Level** in **Alphathon'23** (WorldQuant Brain) by simulating 150+ hedge-fund trading models.
- Represented **Warner Bros. Discovery** in its campus outreach initiative, delivering a tech talk at IIT Jodhpur to engage prospective engineers.

## TECHNICAL SKILLS

**Languages:** Python, C++, C, Fortran, Kotlin, Swift, JavaScript, SQL, LaTeX

**Technologies:** AWS, GCP, Docker, Firebase, Git, GitHub, BrowserStack

**Frameworks:** Kotlin Multiplatform, Django, Flutter, ReactJS, NodeJS

**ML/Stats:** NumPy, Pandas, Scikit-Learn, PyTorch, Keras, Matplotlib, Seaborn

**Areas:** Machine Learning, Compiler Development (AST/ASR/LLVM IR), Full-Stack Development

## KEY ACCOMPLISHMENTS

- Conducted JEE career guidance workshops in collaboration with **Physics Wallah**.
- Served as a **Teaching Assistant** for DSA, ML, and OS, mentoring 250+ students.
- Led the **NLP Team** for Inter IIT Tech Meet 2023 at IIT Madras.
- Head of the **Technical & Entrepreneurial Team** for Prometeo'23.
- **Student Guide**, Student Well-being Committee, IIT Jodhpur.