

Deepanshu Raj

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EDUCATION

B.Tech in Electronics & Communication Engineering
MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY
Grade (CPI): 8.68

Allahabad, IN | May 2022

WORK EXPERIENCE

QUALCOMM | ASSOCIATE ENGINEER

Hyderabad, IN | July 2022 – Present

- Engineered **Cloud and Edge ML pipelines** for on-device AI with sensors stack on Qualcomm's eAI Runtime Engine, empowering OEMs on Snapdragon 8 Gen 2 and Gen 3 chipsets.
- Devised a high-precision fixed-point model, achieving **98.9% on-device accuracy** for **mobile device orientation detection** usecase.
- Contributed in developing **Qualcomm's Low-Power AI (LPAI) DSP package**, which enabled Camera, Audio and Sensor ISVs, to **develop their AI use cases in Low Power mode**.
- Supported **15+ Qualcomm Global Clients** (including **Google, Microsoft, Meta and Samsung**) with their functional issues on **Qualcomm's Snapdragon Sensors Core Solution**, across **Mobile and XR Business Units**.

Tech Stack: C/C++ | Python | Pytorch | AIMET

QUALCOMM | INTERIM ENGINEERING INTERN

Hyderabad, IN | May 2021 – July 2021

- Developed an **Auto-Summarizer** tool, increasing the **Resolution Summary Fulfillment by 95%** for all client's engineering issues on QC SoC, optimizing customer engineer workflows.
- Implemented a potent **Classifier-Decoder Model** for precise context extraction from client-CE text interactions, using **Advanced Python Scripting** and **NLP/Language Models** for efficient data processing and **abstractive summarization**.

Tech Stack: Python | Pytorch | NLTK | Spacy | HuggingFace | T5

PROJECTS

AI-PROCTORING MATE 

PYTHON | OPENCV | TENSORFLOW | DJANGO | TKINTER | SELENIUM | SQLITE3

An **examination portal** featuring **AI-Proctored candidate interface** and a **Web App** for teachers & online quiz creators, facilitating **quiz creation, response monitoring, and feedback delivery**.

- Engineered an **AI-Based Proctoring System** that captures **real-time Liveness, Blink, and Gaze** from the candidate's webcam, ensuring thorough monitoring during examinations.
- Implemented an **evaluation backend** to **evaluate individual candidate responses** and instantly update the **examiner's dashboard** with relevant **quiz statistics**, enhancing the real-time assessment process.
- Implemented **Dual User Authentication at Sign Up** and **Unique Quiz Code Generation on the Quiz Creator's interface** to mitigate unauthorized access.

ACHIEVEMENTS

Orion Award

CONTRIBUTION IN TEAM'S SUCCESS

QCOM | April 2023 - June 2023

POSITION OF RESPONSIBILITY

Avishkar 2k21 - Annual TechFest

DEPARTMENT COORDINATOR OF ELECTROMANIA

MNNIT | Oct 2021 - Dec 2021