

Lokesh Patidar

[+919399428623](tel:+919399428623) - lokesh.pa3102@gmail.com - [linkedin.com/in/lopa31](https://www.linkedin.com/in/lopa31) - github.com/lopa-31

SKILLS AND COURSEWORK

Technical Skills: Advanced Java, Spring, Spring Boot, Kotlin, C++, Python, Android Development, REST APIs

Tools: Android Studio, MATLAB, Git and Github, VS Code, Linux, Gradle, Maven, PostgreSQL, Postman, Docker

Relevant Coursework: OOPs, DSA, Operating Systems, Computer Organization & Architecture, Backend Development

PROFESSIONAL EXPERIENCE

Scientist-B, Research Engineer

New Delhi, Delhi

Centre For Development Of Telematics (C-DoT)

Aug 2024 – Feb 2025

- Provided critical field support for 4G EPC solutions across 8 North Indian states, serving nearly 25 million users.
- Collaborated closely with TCS to deploy, debug, and monitor 4G EPC nodes on Linux VMs, ensuring 24/7 operations.

Software Engineer Intern

Hyderabad, Telangana

MathWorks

Jan 2024 – Apr 2024

- Designed and developed a 5G-compliant Cell-Free massive MIMO simulator with PHY layer splits inspired by O-RAN.
- Leveraged OOP principles in MATLAB to design and implement over 15 modular components across CPU, AP, and UE.

Software Engineer Intern

Bangalore, Karnataka

Samsung Research Institute

May 2023 – July 2023

- Examined 10+ research papers to compile metrics for optical flow accuracy, ensuring comprehensive coverage of errors.
- Developed a benchmarking tool to evaluate accuracy across 10+ AI optical flow models, based on the compiled metrics.
- Implemented the tool using Python, NumPy, and PyTorch, integrating with Samsung's ML pipeline for model optimization.

PROJECTS

Cell-Free Network For 5G And Beyond - 5G Toolbox, MATLAB

Aug 2023 – May 2024

- Researched and worked out on practical implementation of Cell-Free mMIMO networks for 5G and beyond technologies.
- Co-authored a paper "Designing 5G PHY Layer Compliant Cell-Free Massive MIMO Simulator using Sounding Signal," accepted at the OpenRIT 6G Workshop, GLOBECOM 2024, and scheduled for publication on the IEEE website.

Competrace Android App - Kotlin, Android Studio

Dec 2022 – May 2023

- Built an Android app with Jetpack Compose and Kotlin, integrating remote APIs to display various Codeforces data.
- Integrated Room Database for notification scheduling and Firebase backend, achieving 500+ downloads on Play Store.

SMVM For Neural Network Implementation On FPGA - Python, Verilog

Aug 2022 – Nov 2022

- Utilised a CSR-based Sparse Matrix-Vector Multiplication algorithm, achieving a 60% reduction in computation time.
- Implemented a neural network classifier on FPGA, leveraging fast SMVM operations to compute activations.

EDUCATION

Indian Institute Of Technology, Roorkee

Roorkee, Uttarakhand

B.Tech in Electronics and Communication Engineering

Nov 2020 – May 2024

EXTRACURRICULAR

Teaching Assistant

Roorkee, Uttarakhand

Electronics And Communication Engineering Department

Apr 2023 – Dec 2023

- Co-ordinated 120+ B.Tech students as a Teaching Assistant for the course ECE101 - Introduction to Electronics.
- Assisted in the creation and grading of 10+ assignments and examination throughout the semester along with doubt solving.

Core Member

Roorkee, Uttarakhand

National Sports Organization - Cricket

Jan 2022 – May 2023

- Organized Institute level tournaments (10+ events) - Inter IIT, Colors Trophy and Inter Bhawan Tournaments (Cricket).
- Led a team of 15+ players in Institute Colors Trophy 2023 and secured Bronze Medal among 8 teams.