# Vijay Kumar Prajapati

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# **Professional Summary**

Aspiring Full Stack Developer with expertise in Backend and Frontend Development. Proficient in Java, DSA, and modern front-end technologies. Passionate about AI/ML and software development, seeking opportunities to contribute to innovative projects and drive measurable improvements.

# Education

R. V. College of Engineering, Bangalore, Karnataka

B.E. in Electronics and Communication Engineering

2022 - 2026

# **Professional Experience**

Samsung, Bangalore, Karnataka

Research Intern

August 2024 – Present

- Collaborating with the AI/ML and video processing team on noise synthesis projects.
- Designed a conditional GAN model that achieved 70% accuracy in generating realistic noisy images.
- Reduced video processing latency by 15% through optimized YUV encoding/decoding techniques.
- Increased data throughput by streamlining dataset preparation processes, handling a 30GB dataset efficiently.

# **Projects**

# Noise Synthesis in AI/ML - Samsung Research Intern Project

2024

- Developed a conditional GAN model with controlled grain intensity achieving 70% accuracy.
- Improved video compatibility by implementing efficient YUV encoding/decoding, reducing error rates by 20%.
- Curated a 30GB dataset with diverse CRF values, enhancing training and validation processes.
- Utilized FFmpeg for seamless YUV format reconstruction, cutting processing time by 10%.

#### Community Nexus

2024

- Built a mobile application supporting UN SDG 11, reaching over 1,000 active users within the first 3 months.
- Implemented multilingual interfaces, AI-driven voice assistance, and geolocation-based resource discovery, resulting in a 25% increase in user engagement.
- Developed using Kotlin and Node.js for robust scalability, security, and real-time updates.

# Technical Skills

Programming Languages: JavaScript, Java, Python, Kotlin

Frameworks & Libraries: React, Node.js Web Development: HTML, CSS, React

Software Development: OOP, DSA, RESTful APIs, Database Management, Agile/Scrum

AI/ML: Basics of ML, Noise Synthesis Tools: Git, VS Code, Google Cloud

#### Soft Skills

Teamwork & Collaboration, Problem Solving & Critical Thinking, Adaptability & Flexibility, Communication & Interpersonal Skills, Creativity & Innovation, Time Management & Organization

#### Certifications

Intel GenAI Hackathon 24, Programming using Java, Blockchain for Enterprises, Google Cloud Computing Foundation, Web Development

#### Languages

#### English, Hindi