

Umesh Kumar

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EDUCATION

Vellore Institute of Technology, Vellore

Bachelor of Technology in Computer Science and Engineering **CGPA: 8.33**

Vellore, TamilNadu

Aug. 2021 – May 2025

Maharishi International Residential School

Higher-Secondary Education (XII) – CBSE

Chennai, TamilNadu

June. 2019 – May 2021

EXPERIENCE

SAMSUNG PRISM Intern

Samsung Research Institute (SRI-B)

March 2024 – June 2024

Bengaluru, Karnataka

- Successfully developed and launched PlatterAR, an innovative Unity-based application in the Samsung Prism Metaverse program, aimed at enhancing the dining experience for users
- Implemented intuitive user interfaces in Unity using C# for seamless scene switching (8 scenes) and navigation, including a dynamic home screen and a visually appealing menu showcasing exotic dishes.
- Leveraged augmented reality (AR) to offer real-time dish visualization on users' plates, complete with detailed ingredient lists and nutritional information, enriching the dining experience.
- Ported PlatterAR into an APK for Android users (v7.0) and conducted thorough compatibility and performance testing across diverse hardware specifications, resolving issues on 33% of tested devices.

Design Intern

Maven Silicon

August 2023 – October 2023

Bengaluru, Karnataka

- Designed an AHB to APB bridge using Verilog and successfully synthesized the design
- Prepared and presented a detailed report outlining the functionality and performance of the bridge

PROJECTS

ProjectManagerAI | GenAI, Python, Flask, Javascript, Firebase

June 2024 – Present

- Optimized project management by developing a web application that leverages Generative AI to provide actionable insights, enhancing planning efficiency for project managers and businesses.
- Pipelined LlamaAPI with prompt engineering techniques using React.js for the frontend, and firebase, flask for backend integration, to deliver advanced AI-driven insights

ParkEase | Python, YOLOv5, Twilio, UPI

November 2023 – August 2024

- Trained and integrated a customized YOLOv5 model with 99.5% mAP50 accuracy and 67.3% mAP50:95 accuracy for precise license plate detection, paired with OCR to accurately extract and validate text.
- Implemented an automated UPI payment system via Twilio, linking detected license plates to phone numbers and sending SMS payment requests for parking fees.
- Developed a logging system that stores license plate data in Excel, enabling real-time tracking and streamlined data management.

Freestic | Python, Youtube API

October 2023 – November 2023

- Developed Freestic, a desktop music player with a user-friendly Tkinter-based GUI, supporting playback options for over 1,000 songs, as part of the "Backdrop Build" program.
- Integrated with YouTube and Google Custom Search API, achieving a 95% success rate in retrieving accurate song and album covers.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, SQL, JavaScript, HTML/CSS

Technologies: Flask, FAST API, pandas, numpy, matplotlib

Developer Tools: Git, Unity Engine, VS Code, Eclipse, Jupyter

Others: Raspberry Pi, Arduino, Natural Language Processing(NLP), Blockchain Technology

ACHIEVEMENTS

- Ranked 4 in ForkThis'23 an Open Source Contribution Competition conducted by Computer Society of India (CSI).
- Finished top 5 in 36 hour Hackathon conducted by IEEE SPS VIT 2023
- Participated and led a team to second round in Flipkart GRID 5.0 Hackathon 2023.