A T Abbilaash

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About Me

Innovative ML Engineer driven by a passion for optimizing solutions and exploring emerging technologies. Always eager to learn, adapt, and implement advanced techniques in machine learning, AI, computer vision, Data Science, and web development to solve complex problems efficiently.

Education

PSG College Of Technology, BE in Computer Science and Engineering(AI ML) Aug 2023 – Present
- CGPA: 8.0/10 (a link to somewhere)
- **Coursework:** Computer Architecture, Data Structures and Algorithms, Python, C, Database Management System, Operating System, Foundations of Optimization Techniques, Software Engineering, Machine Learning, Computer Vision, Image processing.

Vidhya Niketan Public School, Mathematics, Computer Science June 2021 – March 2023
- Score: 88/100
- **Coursework:** Computer Science, Mathematics, Organic Chemistry, Physics, Language

Experience

Python Development Intern, CodeSpaze June 2005 – Aug 2007
- Developed an Interactive stock market dashboard and a prediction bot which helps trading easy for beginners.
- Built a automatics certificate printing web app which can convert name list to aesthetic certificates and integrated it with certificate verification system.

Skills

Languages: Python, C, SQL, HTML, CSS

Technologies: Natural Language Processing, Prompt Engineering,Computer Vision, Machine Learning, Neural Networks, Raspberry Pi, UI/UX Designing, Web Development, Desktop app Development, Git and GitHub, DBMS

Services used: Qiskit, YOLO, Roboflow, AWS, Gemini, ChatGPT, Figma, VS Code, Ngrok, Tensorflow, Firebase, MySQL

Participations and Certifications

- Impairathon '24, National Assistive Tech Expo - Finalist
- ReCode '23 - 4th Place
- NexTech Hackathon - 5th Place
- SOCIO-TECH Hackathon
- ImagineerX
- SRM Hackathon 8.0
- **Organizer** - PSG HackSphere '25, Pixel-To-Prototype (PSG Tech), Ideathon '24, HackToLearn, Code Rush, OrionPAX
- **Certification** - Python for Data Science (NPTEL, IIT Madras), Software Engineer Intern (HackerRank), UI/UX Designing (InternEzy), Deep Learning (Udemy), Natural Language Processing (Udemy), GUI Development with Python (LinkedIn)
- **Member** - GitHub Campus Club, Google Developer's Group Coimbatore, Coding Club PSG Tech, CSEA PSG Tech, IEEE Students Chapter Web Development Team

- NCC 'A' Certificate Holder

Projects

Quantum Database Model   GitHub repo

- Developed a quantum computing-based search optimization system using Grover's Algorithm in Qiskit, IBM Quantum Experience Simulator. Designed a quantum circuit for efficient retrieval of target records in unordered, unorganized big data, enhancing Relational Database search performance.
- Tools Used: Qiskit (Python), IBM Quantum Experience, Relational Database

VLC Media Player Fuzzing Framework   GitHub repo

- This project is a fuzzing framework designed to identify vulnerabilities in VLC Media Player's media parsing and playback functionalities. The framework utilizes Python to generate and test malformed media files against VLC Media Player (version 3.0.16 or later) on Windows, logging crashes and errors encountered during playback.
- Tools Used: Python, Automated Testing and Crash Detection

VisionNav   GitHub repo

- A CNN based object recognition and navigation assistance system designed to enhance the mobility and independence of individuals with visual impairement. This project was selected one amung the final projects in a National level assistive technology hackathon and ATA-EXPO 2024.
- Tools Used: Python, YOLOv8, Roboflow, CutomTkinter, Raspbian, Windows

Angel server   Angel website

- My personnel Raspberry pi 5 home server which can control automate my IoT house and my work.
- Tools Used: Python, Flask, Raspbian, Raspberry Pi, Node MCU, HTML, CSS, bootstrap

NexCLI   GitHub repo

- This project integrates Gemini AI with a custom CLI to interpret natural language commands and translate them into precise Windows OS operations, using system context and robust error handling for command execution.
- Python, Prompt Engineering, Gemini API, OS Architecture