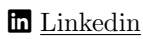
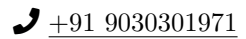


Bhaskara Akshay Sriram

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EDUCATION

Indian Institute of Information Technology, Kottayam

2023 - 2027

B.Tech-Computer Science and Engineering with specialization in AI and Data Science

SKILLS

Certification: Microsoft Azure AI Engineer Associate

Programming: C, C++, Java, Python, JavaScript, TypeScript, SQL

Technologies: React, Next.js, Node.js, Tailwind CSS, PostgreSQL, Prisma, FastAPI, Git, Postman, OpenCV

Core: OOPS, Operating System, Compiler Design, System Design, DBMS, Software Architecture, Computer Networks

PROJECTS

Two-Wheeler Driving Behavior Scorer | *Blog post* | *Python, OpenCV, YOLOv8, NumPy, React, FastAPI* 2026

- Developed a real-time ADAS system for **Varroc Eureka 3.0** scoring two-wheeler riding behavior (0–100) with a **React + FastAPI dashboard** featuring 60fps WebSocket video streaming, dual detection engines (`dashcam.py/fixed_cam.py`), **Constant-Acceleration Kalman filter** on ego-motion-compensated centroids via Lucas-Kanade optical flow, and calibration-free speed estimation using fleet-shared MPP ($m/px = w_{real}/w_{bbox}$).
- Engineered 6 behavioral metrics (hard brake, aggressive acceleration, lane weave, tailgating, sudden stop, helmet non-compliance) with **fleet-context adaptive thresholds** ($brkthr = 2.5 + 0.6 \times |fleet_decel|$) and 18-frame event cooldown; integrated helmet detection using Otsu blob analysis with 30-frame majority vote at 70% threshold and Re-ID by proximity to prevent ID splits after occlusion.

Cal Clone – Scheduling Platform | *Next.js 14, React, TypeScript, Tailwind CSS, Prisma, PostgreSQL* 2026

- Constructed a full-stack **Cal.com-style scheduling application** with Next.js App Router featuring event type CRUD with unique URL slugs, per-day availability rules with timezone selection, date overrides, public booking page with time-slot computation, real-time **double-booking prevention** via half-open interval overlap checks, and automated **email notification system using Nodemailer** for confirmations, cancellations, and 24-hour reminders via secure Cron jobs.
- Architected a normalized **6-table PostgreSQL schema** with composite indexes on (event_type_id, date, status) for fast slot queries and denormalized end_time for efficient overlap detection; delivered 11 REST API endpoints, responsive admin dashboard with bookings view (upcoming/past/cancelled tabs), multi-step public booking flow with Prisma transactional writes, and demo-ready deployment on Vercel.

Quantum-Enhanced Medical Image Diagnostics | *Python, TensorFlow/Keras, Qiskit, NumPy, Pandas* 2025

- Created a **hybrid quantum-classical deep learning model** combining CNNs with variational quantum circuits to perform medical image classification; encoded classical features into quantum states using angle encoding with 4 qubits and variational quantum layers, optimized with Adam optimizer to ensure stable convergence.
- Achieved a **6–8% classification accuracy improvement** over classical baseline, reaching 90% accuracy verified via precision, recall, F1-score, and confusion matrix analysis; produced statistical evaluation reports, training graphs, loss vs epochs curves, and quantum circuit visualizations demonstrating quantum-enhanced learning effectiveness for medical data.

EXPERIENCE

Non Invasive Detection of Diabetes | *Research Project*

March 2024 – June 2024

- Under the guidance of Dr. Mahesh Parihar, IIT Bombay
- Trained classification models (Logistic Regression, KNN, Decision Trees) on the Pima Indians Diabetes Dataset, achieving 96% accuracy with rigorous performance benchmarking across multiple evaluation metrics including ROC-AUC and confusion matrices.

Estimation of Failure of Airplane Engines | *Student Researcher*

July 2024 - Dec 2024

- Under the guidance of Dr. Yogeshwar Singh, DIAT, Pune
- Designed and constructed a user interface dashboard to facilitate data preprocessing and fusion workflows.
- Deployed machine learning models for estimating Remaining Useful Life (RUL) on the C-MAPSS dataset.

LEADERSHIP AND COMMUNITY

- Leetcode** - Solved 350+ problems related to DSA
- Smart India Hackathon** - Participated in the Smart India Hackathon 2023
- Powerlifting** - Winner of Intra IIIT-K sports meet 2026
- Basketball** - Winners of school-level and intra IIIT-K sports meet 2023