Kavin Bharathi

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CERTIFICATIONS AND SKILLS

- **Certifications**
  - Applied data science with python **|** Coursera
  - Microsoft Certified: Azure Administrator Associate | Microsoft
  - Google Cloud Computing Foundations | Google
  - Full Stack Open | University of Helsinki
- **Programming Languages:** C, C++, C#, Java, JavaScript, Python, R, SQL, MongoDB, Typescript
- **Technologies:** ASP.NET, Docker, Keras, Matplotlib, NumPy, Pandas, React, TensorFlow, PyTorch
- **Cloud Platforms:** Microsoft Azure, Google Cloud Platform
- **Development Environments:** Linux, Windows, Web, Arduino, FGPA, ESP32, Raspberry Pi
- **Languages:** English (Fluent), Tamil (Native), Hindi (Conversational), German and Arabic (Beginner)

PROJECTS AND EXPERIENCE

Automated Hostel Excess Food Management System (AEFMS) Feb. 2024

- Enhanced AHSAS model to integrate biometric access for temperature-controlled and access restricted storage units, potentially improving security by 80%.
- Deployed a system to notify orphanages on availability of surplus food and reduce food waste by 25%.
- Updated inventory database in near real-time, demonstrating a possible 90% improvement in data accuracy on the web dashboard and **initiated patent application process** for AEFMS.
- Technologies used: React, ESP Cam, OpenCV, NumPy, Keras, Pandas, Raspberry Pi and TensorFlow.

Automated Home Security and Assistance System (AHSAS) Jun. 2023

- Modified FAD and implemented a face detection and recognition system, achieving an accuracy of 95%.
- Designed an alert system capable of instantly notifying owners of unrecognized face detection, potentially reducing response time by 70% compared to traditional intrusion detection systems.
- Demonstrated system's efficacy in assisting people of determination to enter homes independently, enhancing accessibility and autonomy for them.
- Technologies used: ESPCAM, Python, OpenCV, NumPy, Keras, Pandas and TensorFlow

Facial Accessories Detection using Deep Learning (FAD) Jun. 2022

Research Intern | National Institute of Technology (NITT) *Trichy, TN*

- Developed a system using multiple deep learning models to detect and classify masks and glasses.
- Achieved over 95% accuracy in crowded situations with up to 50 subjects in real time video feeds.
- **Published research paper at CLIP 2022**, with potentially 30% improvement in security screening efficiency.
- Technologies used: Python, OpenCV, NumPy, Keras, Pandas and TensorFlow.

EDUCATION

Vellore Institute of Technology May. 2025

B. Tech, Computer Science | CGPA: 8.16/10 *Chennai, TN*

- **Relevant Coursework:** Data Structures, Operating Systems, Artificial Intelligence, Deep Learning, Database Systems, Computer Networks, Game Design, Machine Vision, Speech Processing, Statistics.

Asian International Private School *Abu Dhabi, UAE*

- ***Senior Secondary*** - Scored 88% in board examination conducted by CBSE. Apr. 2021
- ***Higher Secondary*** - Scored 84.5% in board examination conducted by CBSE. Apr. 2019