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Bala Guga Gopal S

To acquire a challenging job where my academic expertise could be explored and nurtured.

SKILLS

- Version control (git/git bash)
- Linux
- Tensorflow
- TinyML
- Image processing - (intermediate)

- Microcontrollers
- Raspberry Pi
- Gazebo
- Pixhawk
- Arduino
- Matlab
- Keil

- Embedded C
- MPLab
- Labview
- GUI creation
- Qt(basics)
- .exe creation(x platform)

➔ Comfortable in working with different IDE, Good at understanding Codes, Working knowledge with design and development of UAV, ASV , related Protocols
➔ **Programming languages** - Python, c, c++, **Protocols** - Mavlink, I2C, SPI, UART, USART

EXPERIENCE

Inferigence Quotient LLP, Bangalore — *Embedded Computer Vision*

May 2021 - Oct 2021 (intern)

- Implementation of Face Detection/Recognition in ESP32 cam (an inbuilt AI algorithm using tf lite on a SoC)
- Human detection using tflite in ESP32 Cam.
- Image classification using tinyml for microcontrollers.

EyeROV technologies Pvt Ltd, Kerala — *Project intern*

Jan 2020 - Sep 2020

- Responsible for Customizing embedded firmware for underwater ROV
- Design and development of ASV (autonomous surface vehicle)
- Automation of DryTest

EDUCATION

Cochin university of Science and technology, Kerala — *M.tech Electronics and communication (Pursuing)*

Cochin university of Science and technology, Kerala — *M.sc-Electronics (July 2018 - Apr 2020)*

COURSES/CERTIFICATIONS

- Google IT automation with python
- Natural Language Processing
- Data Structures - c++
- Neural Networks

INTERESTS

Robot navigation, Image processing, Embedded system design and development, Sensor interfaces, Home automations, Hobby circuits.

PROJECTS

- Custom object detection for edge devices - [Link](#)

  Customized object detection for edge devices using tflite and tinyml and embedded c

- Image classification using TFlite for Edge devices

  Offloading the Image classification algorithms on edge devices at the cost of reducing the cloud usage for post processing.

- Obstacle Avoidance robot

  Obstacle Avoider Robot is another famous robot which spices up embedded projects. With the Eye in all the three directions it can maneuver accordingly.

- Automatic temperature controller

  A low-cost microcontroller-based temperature controller with real-time clock that can read and control temperatures and Log the values wrt to time.

- Quality control system using CV with microcontroller

  Quality control is the most challenging issue in industries especially. This image processing based system analyzes the quality standards of the tablet strips in pharma industries which will conform the quality of the strips

AWARDS

- Received university gold medal in UG, from Bharathidasan university, Tiruchirapalli, Tamilnadu
- Received incentive of Rs.3,100 p/m from "PG Scholarship for university rank holders" under UGC Scheme from National Scholarship portal

LANGUAGES KNOWN

- TAMIL - Full proficiency
- ENGLISH - Full Proficiency
- HINDI, Malayalam - Intermediate.