# SHADAB SHAIKH (M)

# EMBEDDED SYSTEMS ENGINEER

#### EXPERIENCE

#### SENIOR ENGINEER - EMBEDDED SYSTEMS

NHANZ SYSTEMS PVT. LTD., Bangalore, India 07/2020 - 03/2023

- Development of Full Software Architecture of a Motor Controller for
- Research on optimizing the efficiency of the Motor Control Algorithms
- Module Testing using Ceedling Unit Test for Test Driven Development
- Defining the HSI (Hardware Software Interface) for the Motor Controller Platform
- Performance Testing of the Inverter Hardware
- Bootloader Port and Flash Programming

#### EMBEDDED SYSTEMS DEVELOPER (TCU APPLICATION)

INMOTIVE INC., Bangalore, India 07/2020 - 07/2022

- Firmware development for TMS570 Microcontroller Platform
- Transmission Control software reprogramming
- Curtis Motor Controller reprogramming
- System Testing on Dynamometer

#### FIRMWARE DEVELOPMENT CONSULTANT

BIODESIGN INNOVATION LABS, Bangalore, India 05/2020 - 07/2020

- State-machine development for HMI frontend and backend programming
- Defining the HSI for a Ventilator Controller Architecture
- Servo Motor Control Programming and UART Communication interfacing.
- **Product Validation testing**

#### **EMBEDDED SYSTEMS ENGINEER**

EMFLUX MOTORS PVT. LTD., Bangalore, India 07/2018 - 04/2020

- Direct Software Development for the EMFLUX ONE Electric Motorbike
- Simulink based Model Design of the Motor Controller Algorithm
- Induction Motor Control Algorithm Development
- Data Acquisition Software in Embedded Linux & Hardware Development
- CAN Communication Architecture Design for Prototype ECU/Master Controller

# CONTACT

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#### ABOUT ME

Motivated Student currently pursuing a master's degree in Embedded Systems Design. Valuable working experience in the research and development of software architecture, design and testing of products. Comprehensive knowledge in the field of Embedded Systems and Computer Programming.

Date of Birth: 20.05.1996

Nationality: Indian Family Status: Single

#### EXPERTISE

#### Languages

**English: Professional Proficiency** 

German: Good

#### Software-Expertise

C/C++: Excellent

MATLAB/SIMULINK: Very Good

Python: Good

# Other-Skills

**GIT** 

Motor Control Algorithms Electric Vehicle Architecture **Image Processing** Real Time Operating Systems Model Based Design HIL/SIL Testing **ARM Microcontrollers** Agile Project Management

# EDUCATION

#### Masters in Embedded Systems Design

Hochschule Bremerhaven, (Bremerhaven, Bremen)

04/2023 - today

<u>Topics of focus</u>: Digital Systems, Discrete Control Systems, VHDL, Model Based Design

Semester Project: Autonomous Car

• Requirements and Specification analysis

- The trajectory of an autonomous car was modelled in MATLAB
- Implemented on HARDWARE using Lego Mindstorm Platform

#### **Bachelors in Electronics and Communication**

Savitribai Phule Pune University, (Pune)

09/2014 - 07/2018

<u>Topics of focus</u>: Analog Circuits, Communication, Digital Systems, Control Systems, Image Processing

Project: e-Health Monitoring using rPPG:

- Contactless Heart rate detection using video of Human Face
- Algorithm Design in MATLAB
- Digital Signal Processing
- Image Processing

#### EXPERTISE

Other-Skills

Bootloader

**CAN Communication** 

Documentation

Date: 28/08/2023

Signature:

