



Antony Megalla

CURRICULUM VITAE

Junior Software Developer

Introduction

- I am a BME Master's degree student in Electrical Engineering specializing in Embedded systems and machine learning.
- I'm Junior Technical Team Leader at Artive for an unpaid internship.

CONTACT



Budapest, Hungary



Whatsapp

+36 203829728



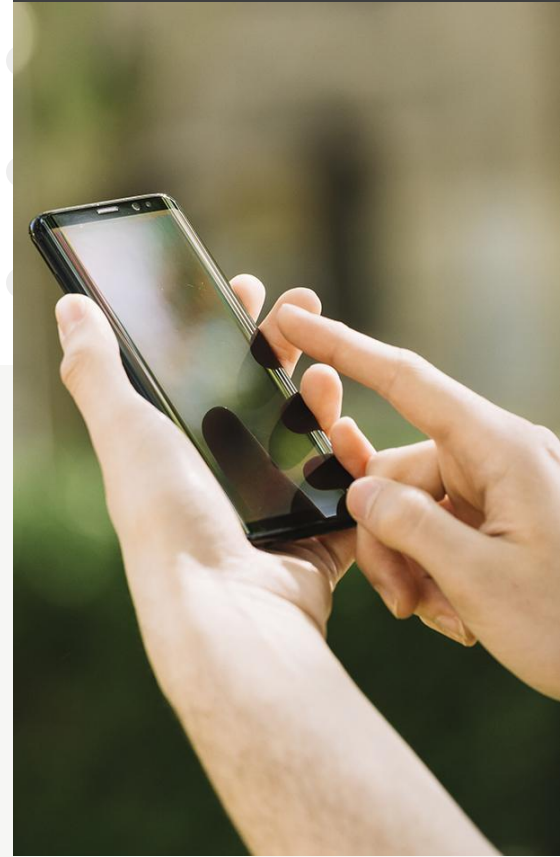
EMAIL

antonytharwatfekry@gmail.com



CELL PHONE

+36 203829728



EDUCATION

2011

High School

Saint Joseph Maronite
Language School in Egypt

2011-2016

BSc. Degree in Electrical Engineering

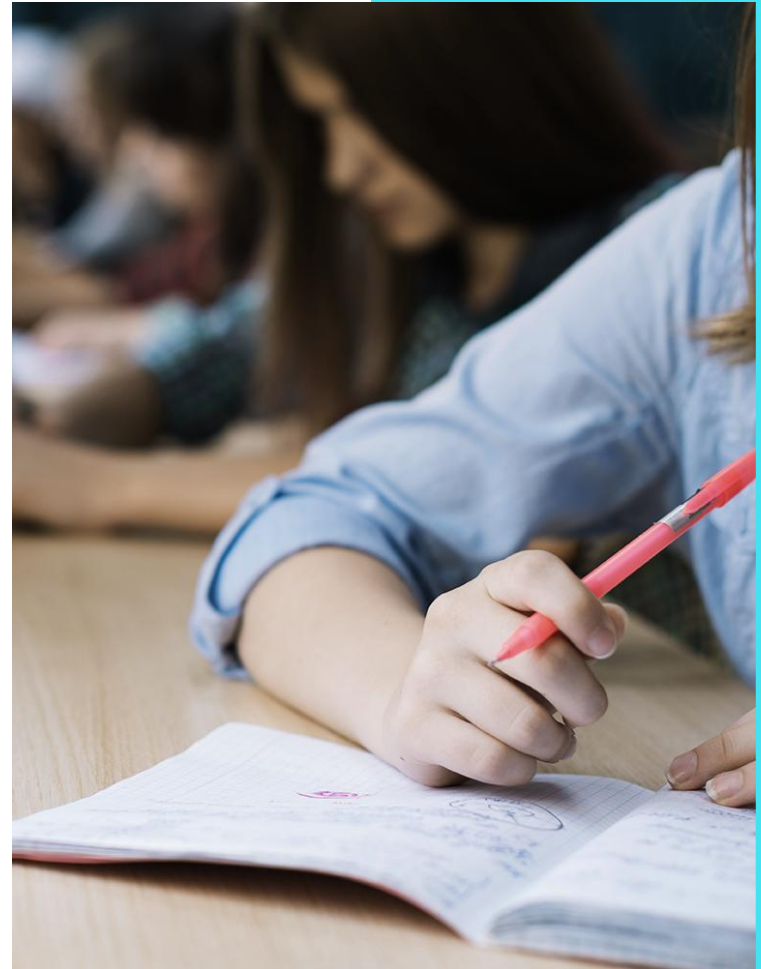
Bachelor of Electrical
Engineering Ain-Shames
University - Egypt

2021-Current

MSc. Degree in Embedded Systems

Master Program in Electrical
Engineering Budapest
University of Technology and
Economics (BME))

Accumulative GPA 4.33



Master Program in Electrical Engineering Budapest University of Technology and Economics (BME) Accumulative GPA 4.33



Studies' Main Topics:

- Software programming using Python and C
- Advanced Mathematics Stochastics and Linear Algebra (data analysis and machine learning applications)
- Artificial Intelligence (AI, Machine learning, Deep Learning) algorithms.
- Embedded System Development and management.

EXPERIENCE

I contributed leadership, teamwork, and customer education toward team efforts and business improvements. I am progressive-minded and in tune with new developments in my field.



September 2022 - Current

**Junior Technical Team
Leader**

Company: Artive Ltd.
Location: Budapest, Hungary



2022 (Summer Training)

**Junior Embedded Systems
Software Developer**

Company: CREO.HU KFT.
Location: Budapest, Hungary



2018-2021

Network Engineer

Company: EMDEG
Electromechanical Design
Engineering Consultant Group
Location: Cairo, Egypt



Junior Embedded Systems Software Developer

CREO.HU KFT. - Creo Group

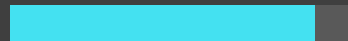
- Main Project Name: Garbage Ship – E-nose – Weather Station
- Utilize various MCUs (STM32, ESP32, Coral Development Board, Raspberry Pi)
- Participate as a reviewer in code reviews.

KEY SKILLS

Python



Raspberry Pi



C Programming



ESP32 & STM32



Junior Technical Team Leader

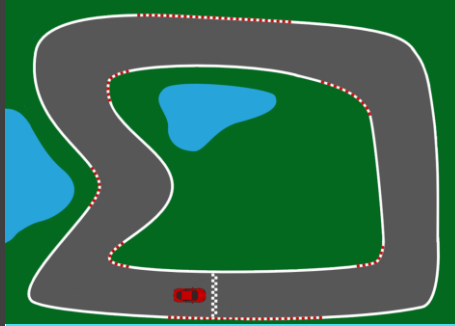
Artive Ltd.

- Experience in Design and integration of New Artive Smartwatch
- Design embedded analogue and digital circuit diagrams
- Designing PCB layouts



Thesis Diploma Project

Self-Driven Car Simulator Using Artificial Neural-network and Genetic Algorithm



- A Simulated Self-driving Car, built in PyGame, and the hardware is STM32 embedded with the Artificial Intelligence Model.
- I intend to increase the possibility of AI implementation in a low-power embedded system

Tasks

Libraries Tools

Hardware Board

STM32 (STM32F429) – Discovery Board

Communication
Protocol

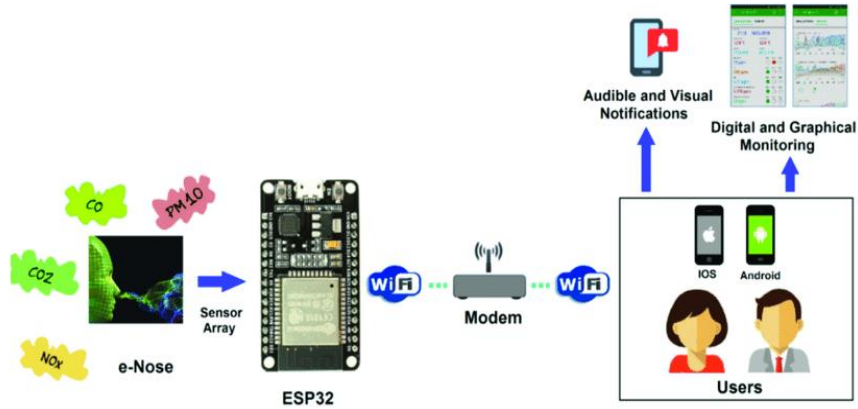
USART - Wi-Fi

Programming
Language

Python for the car simulator / C Code (STM32cube IDE)

C Programming Projects

Electronic Nose using ESP32 and C code



The e-nose air quality monitoring system consists of a detection and communication unit consisting of an ESP32 microcontroller-based SPS 30 sensor array with built-in Wi-Fi. The ESP32 module with a built-in Wi-Fi module is used in the e-nose system created for monitoring air quality.

Tasks

Libraries Tools

Hardware

ESP32 – SPS 30 dust
Sensors

IDE software

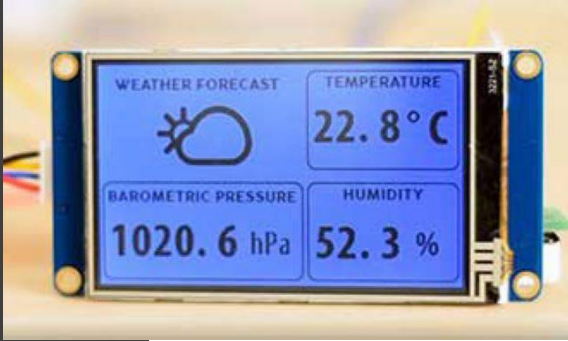
ESP-IDF – VS code

Programming
Language

C Code



Weather Station using STM32 Board with Built-in Sensors



Weather station based on STM32 Board with built-in sensors. Communicating to sensors with I2C communication. The purpose is to collect data about temperature, pressure, and humidity, and log data on an SD card.

Note: The picture on this Slide is for visualization only, and not the real implemented prototype

Tasks	Libraries Tools
Hardware Board	STM32 (STEVAL-STWINKT1)
On Board Sensors	<ul style="list-style-type: none">- Digital absolute pressure sensor (LPS22HH)- Relative humidity and temperature sensor (HTS221)- Low-voltage digital local temperature sensor (STTS751)
Programming Language	C Code (STM32cube IDE)

Python Projects

Garbage Ship Collector

This project's scope is to develop an object detection deep learning model to detect plastic bottles floating on the water surface.

The Garbage ship with a mission to collect plastic and waste from rivers and lakes. For less pollution and clean rivers.

Tasks

Data collection

Data annotation tools

Hardware

Object Detection
Model

Libraries Tools

Google Coral Camera

RoboFlow website

Google Coral Development
Board

Mobile-net model &
TensorFlow lite



Predicting Player's Transfer Using Data Analysis and Machine Learning

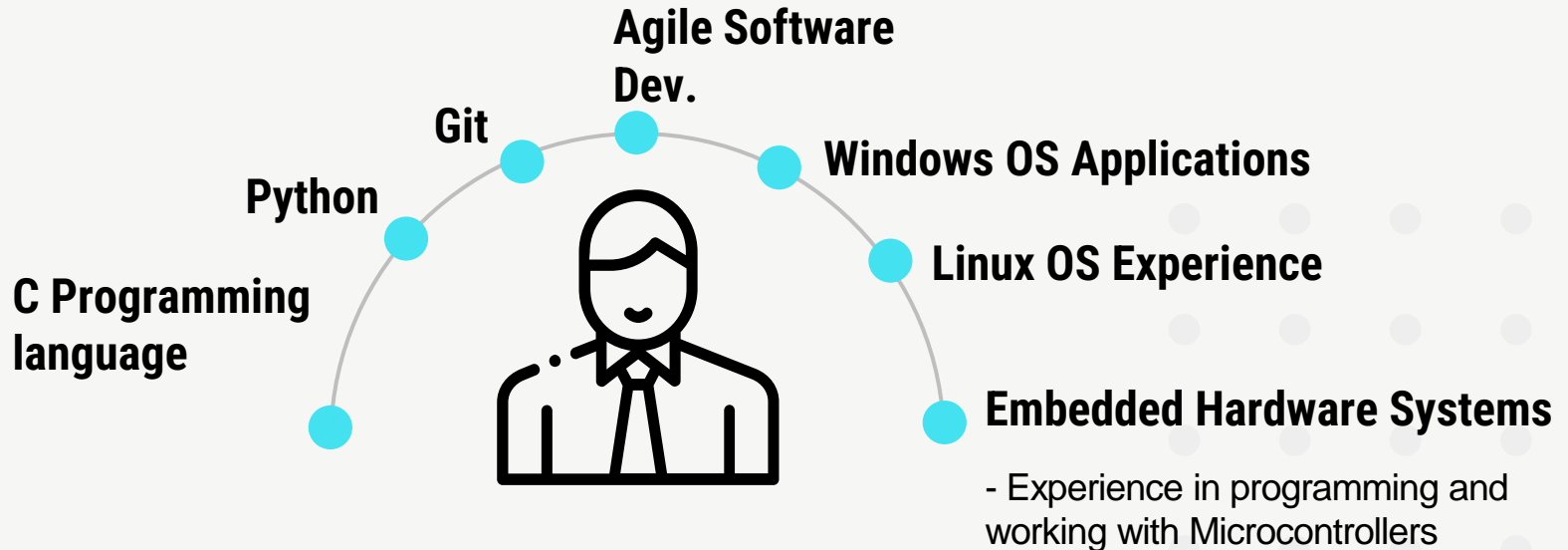


This project's scope is to design a machine learning-based model that could predict soccer star transfer for next season based on major constraints.

several steps to clean and cluster data for performing machine learning algorithms such as KNN (K-nearest Neighbor's Algorithm). Finally, after the model evaluations, conclusions and results were drawn.

Tasks	Libraries Tools
Data Scraping	Beautiful Soap
Data Cleaning and clustering	Pandas
Machine Learning Model	KNN algorithm

TECHNICAL SKILLS



COMMUNICATION SKILLS

MOTHER TONGUE(S)



Arabic

Other Languages

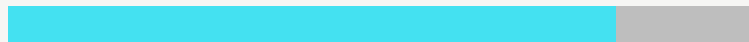


English

OTHER LANGUAGE(S)

B2

Listing and Reading



B2

Speaking



Personal SKILLS



**Used to work
efficiently under
pressure to meet
deadlines**



Problem-solving skills



Analytical skills



Multi-tasking



Hard worker

Social SKILLS



**Work in a team in
multicultural**



Relationship building



Self-motivated



Self-confidence



Self-learning

THANKS

Do you have any questions?

antonytharwatfekry@gmail.com

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