MAGDY ABDEL

ELECTRONICS/SOFTWARE ENGINEER

CONTACT

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Creative and autonomous engineer aspiring for innovation, passioned by software development with strong communicative skills while striving for perfection.

EDUCATION

University
Msc Engineering Electronics ICT
Cum Laude
KU Leuven - Groep T
2019 – 2020

Projects: Embedded game system (C/Java), Qt application (C++), thesis (Matlab/Python)

Bsc Engineering Electronics ICT
KU Leuven - Groep T
2015 – 2020

Projects: Android game (OpenGL), Sensor system simulator (C), Weather image processing (Python)

Online courses
Machine Learning, Coursera
2020

Computer Graphics, edX
2022 – 2023

Language School
Japanese
Centrum voor Levende Talen, Leuven
2019 – 2021

Spanish
CVO Crescendo, Mechelen
2022 – 2023

EXPERIENCE

I currently work as a software engineer where I maintain and grow my programming abilities combined with both independent and in-team project management. The foundation for these skills was built during my education with continuous group projects and expanded on during my work career. Below I describe some relevant experiences and projects worth referencing.

Software Engineer at Celestia Antwerp - 2021 - now
At Celestia Antwerp I work as a software engineer for ground station modems. I work autonomously within the team, where I am able to make design choices and have an impact within the space industry. Programming languages often used are Python, C/C++ and TCL/TK. And some web development as well, using the Angular Framework and Typescript.

Master's thesis: Spatial Filtering in Colour Appearance Models - 2020
A fellow student and I investigated existing colour appearance models (CAMs) and the improvements spatial filtering techniques (e.g. gaussian blurring) could introduce to these models. CAMs describe the perceptual attributes of light, e.g. the brightness of an object in different environments. To accomplish this we did an extensive study on the human retina. We studied different retina models (mathematical models describing the human retina) and their spatial filtering techniques to see whether specific perceptual attributes and effects were being predicted by those models. Programming languages used are Matlab and Python. Applications of this thesis include improvement of colour representation on digital devices as well as realistic photography and video quality improvement.

Bachelor's thesis: Automatic Weather Satellite Receiver - 2019
The goal of my thesis was to make a satellite dish automatically rotate towards the transmitting weather satellite, receive the weather images and finally process these images into practical weather images. The satellite dish setup consisted of auxiliary sensors (IMU and GPS) and motors to make it rotate correctly. Programming languages used for this project were C (Arduino and auxiliary sensors) and Python (image processing).

SKILLS

Analytic
Autonomous
Initiative
Innovative
Problem solving
Teamplayer

Programming languages:
Java (EE), PHP, SQL, OpenGL, Python
C, C++, Matlab, TCL/TK

Graphic design and photography:
Photoshop, Illustrator, Indesign

Web design:
HTML, CSS, Javascript, Typescript

LANGUAGES

Dutch	(native)
English	(full professional proficiency)
French	(limited working proficiency)
Portuguese	(limited working proficiency)
Spanish	(elementary proficiency)
Japanese	(elementary proficiency)

CERTIFICATES

Machine Learning	Stanford University (issued 03.2020)	Coursera ID: ZJZ9W87X6672
Computer Graphics	UC San Diego (issued 01.2023)	EdX ID: 75aaee793e1f4af 482da20bd862020d7