

PERSONAL INFORMATION

Dima Anca Petruța

WORK EXPERIENCE

March 2021 – present

Associate Teaching Assistant**University Politehnica, Faculty of Electrical Engineering**

Projects and laboratory work:

- Embedded Systems Programming - laboratory performed in the Code Composer Studio program, using the C programming language, and running it on a Texas Instruments integrated circuit;
- Servos - laboratory performed in Matlab, where PID control loops are built and tested on a DC motor.
- Power Quality - laboratory performed in PSIM, an analysis of various schemes for evaluating the Total Harmonic Distortion (THD) factor is conducted.
- Signal processing - laboratory performed in computer programs such as Matlab, Octave, Scilab;

Business or sector Teaching

September 2022 – present

Model based developer**Bertrandt Engineering Technologies Romania S.R.L.**

- Activities – testing and development SIL(Software in the Loop) and MIL(Model in the Loop) requirement for TME (Thermomanagement) system, for hybrid vehicles. Analyse system requirements. Implementation models following the architecture and requirements in Matlab/Simulink, Stateflow. Formulated SWC Specifications to match the implementation and the Customer Requirements. Testing models by cross-checking the customer requirements, software specifications and model and after that create the test in TPT. Support for configuration management activities: update data set, create tags (GlobalParameter). Working with a package of tool like: Matlab – Simulink, Polarion, Scrum, TPT 17, SVN.
- Team support, mentorship for new members. Implicated in sprint planning and work package management.

Business or sector Automotive

March 2022 – August 2022

SIV (System Integration and Validation)**Bertrandt Engineering Technologies Romania S.R.L.**

- Activities – integration and validation of the requirements for BMS (Battery Management System), for HEV (hybrid electric vehicles) and PHEV (plug-in hybrid electric vehicle) softwares following the validation plan and the specifications (the Spec). Working with a package of tool like: Canalyzer, DDT 2000, DiagRA, Matlab - Simulink, TuneCAD, EMSET, SBM Powertrain and the ControlDesk for the HIL bench, we analyze different problems on the tested software. Performing various manual tests like, Safety Short validation, IS and DMFI.

Business or sector Automotive

March 2016 – 2024

Administrator**DIMA ANCA-PETRUTA PFA**

- Activities - obtaining, implementing and finalizing projects with non-reimbursable European funds 6.1 – Instalare tanar fermier and 6.2 – Infiintare centru de gazduire a aplicatiilor web in spatial rural. Carrying out the business plan and procurement according to the legislation in force, fulfilling the obligations assumed in the project, primary accounting, recruitment of human resources, attracting clients, negotiating contracts and fulfilling them; - details www.doyoursite.net

Business or sector ITNovember 2015 – September
2018**Intern**MicroDERLab - Universitatea Politehnica București – Facultatea de Inginerie Electrică Spl. Independentei nr.313, Bucuresti 060042, www.upb.ro

- Research activities - participation in projects (national and international grants) on topics: direct voltage and hybrid microgrids; synchronized measurement systems using PMU technology; smart metering technologies and associated services (smart metering); electricity quality (ITCity) and relevant standards; - details www.microderlab.pub.ro.
- Website administration – development, maintenance and updating.
- Organizing activities – Round Table IRE “Contorizare inteligentă - experiența din proiectele derulate și noi tendințe pe plan european”, 16 June 2017, Bucharest (in Romanian); International Microgrid Symposiums in Bucharest, 2-4 September 2018.
- Teaching activities – elaboration, application and correction of exams, interaction with students.

Business or sector Research

June 2016 – September 2016

Intern

PSS – ProSoft Solution, Bulevardul Iuliu Maniu 7, București

- Activities - documentation about the testing process, types of testing, types of people testing, the supermarket market, software testing for various types of scales and collection systems.

Business or sector Software testing

EDUCATION AND TRAINING

2020 – present

PH D

University „Politehnica” of Bucharest, Electrical Engineering

Investigating the interdependencies between various electricity quality problems and identifying their source in low voltage networks. Development of a web application that can store information and that will contain a web interface through which the quality parameters of the electricity determined with the help of several measuring equipments can be stored, monitored and processed.

2017 – 2019

MSc

University of Bucharest, Faculty of Mathematics and Computer Science

Diploma project

“Aplicație data warehouse pentru echipamente de înaltă precizie” (in Romanian), Advisor: Lect. Dr. Letiția Marin;

- defining measuring equipment, monitoring voltage and frequency
- description of the database (entities, relationships, attributes, diagrams)
- Data warehouse (star diagram, entities, attributes, constraints)
- implementation of data monitoring functions in the data warehouse
- web interface made with JavaScript

The main subject studied

Databases and web technologies: Oracle Database (complex interogation, PL/SQL triggers, security, distributed databases), JavaScript, Virtual Reality, Data mining, Information retrieval algorithms, Data Warehouse.

2013 – 2017

BSc

University „Politehnica” of Bucharest, Faculty of Electrical Engineering

Diploma project

“Monitorizarea parametrilor de calitate a energiei electrice utilizând măsurările sincronizate. Aplicație web” (in Romanian), Advisor: Sl. dr. ing Ana Maria Dumitrescu ;

- defining synchronized measurements and the devices with which we can measure it.
- defining electricity quality and data aggregation, rapid voltage changes, rate of change of frequency according to IEC 61000-4-30 standard
- creating and implementing algorithms (modifying and updating already existing Matlab scripts) for calculating the described values in a client-based application with JavaScript

The main subject studied

Embedded Systems Programming, Integrated Systems Architecture and Configuration, Microcontrollers and Programmable Controllers, Microprocessor Systems, Object-oriented programming (OOP), Electrical and Electronic Measurements, Electronics.

Certificates Graduation certificate for course Java 1 Profesional
 Graduation certificate for course Java 1 Associate
 Graduation certificate for course Database Design and Programming With SQL

PERSONAL SKILLS

Mother tongue(s) Romanian

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	INDEPENDENT USER	INDEPENDENT USER	INDEPENDENT USER	INDEPENDENT USER	INDEPENDENT USER
	B2				
French	INDEPENDENT USER	INDEPENDENT USER	BASIC USER	BASIC USER	INDEPENDENT USER
	B2	B2	B1	B1	B2

Communication skills ▪ good communication skills gained through my experience as entrepreneur and students group leader

Organisational / managerial skills ▪ leadership (currently responsible for my firm and my employees)
 ▪ interpersonal skills: actively listening to people and stimulated interest and discussion
 ▪ teaching: supervise and taught students, and master students as a part of my Phd program
 ▪ time management capacity achieved during my experience as entrepreneur
 ▪ project planning
 ▪ synthesis capacity, working ability under the pressure of deadlines and ability to deal in parallel with several problems

Computer skills ▪ MATLAB and Simulink
 ▪ Canalyzer
 ▪ DDT 2000
 ▪ TuneCAD
 ▪ EMSET
 ▪ SBM
 ▪ C / C ++, Java, HTML, JavaScript basic
 ▪ SQL, PL/SQL
 ▪ AutoCAD basic
 ▪ Microsoft Office suite advanced
 ▪ Microsoft operating systems advanced
 ▪ COMSOL Software, PSIM Software basic

Driving licence ▪ B