Radu Daniel BOLCAŞ

Experienced software developer with main interest in Python.

Skills

OS: Linux OS (Yocto, Scripting), Windows
Scripting: Python (Django, Flask, MVC, Web Services), Bash
Databases: MSSQL, MySQL, Redis
Versioning Tools: Git, SVN, ClearCase, IMS
CI/CD: Jenkins, Bamboo
Machine Learning tools: TensorFlow, Keras, PyTorch, pandas, numpy
Containerization: Docker, Docker compose
Software: Java (Android), C/C++
Other Tools: Agile & Atlassian toolchain

Languages: English (Advanced), French (Beginner)

Employment History

Devops @ NXP
Apr 2023 – Present

- Development on an automation framework using Python.
- CI/CD (Jenkins, Bamboo).

Python Developer @ Rsystems
Mar 2022 – Mar 2023

- Development of a test framework using Python, Pytest, Flask, Bash, Docker, Redis, Git.
- Create and migrate tests from monolith to microservice architecture.
- Create testing mediums (development, staging, production) using CI/CD (Jenkins), node configuration.

Python Developer @ Enea
Sep 2020 – Mar 2022

- Development on a test framework for Barco's Clickshare (Python, Unittest, Nosetest).
- Create and run Regression/ Automated/ Manual/ Unit/ Functional/ Sanity tests.
- CI/CD (Jenkins), node configuration, streamline PRs, create jobs, tests grouping, measurements, subscriptions, etc.
- Display test reports with Django (MVC, DB, REST API).

Python Developer @ Luxoft (DXC)
Nov 2018 – Sep 2020

- R&D using Python, Bash Scripts in Linux on ASML project.
- Use CMake to build OpenCV configurations on Linux.
- Create and run sanity tests, regression tests, progression tests, Robot Framework automated tests on implemented changes.

Teaching Assistant @ ETTI UPB
Feb 2018 – Jan 2022

- Teach the Android Platform Programming laboratory.
- Introduce basic Android architecture knowledge to 2nd year students.

Python Developer/ QA @ Assystem (Expleo)
Apr 2018 – Nov 2018

- Testing and development on Automotive Embedded Systems based on Autosar Architecture.
- Create automatic tests using Python and C (use MISRA standard).
- Knowledge of network protocols (CAN, LIN, etc.)
- Usage of laboratory equipment for testing different scenarios.

Internship @ ROCC Enterprise SRL
- Design IT infrastructure, local networks, implement and administer the network equipment.

Jan 2017– Sep 2017

Internship @ AFT Design SRL (Autonomous Flight Technologies)
- PCB manufacturing, testing and validating with SPICE, CAD (Altium) and laboratory equipment for company's UAVs (Drones).

Oct 2015 – Sep 2016

Internship @ Orange Romania SA
- Research beacon communication based on Bluetooth technology.

Jul 2014 – Sep 2014

Education

Faculty of Electronics, Telecommunications and Information Technology, University Politehnica of Bucharest

PhD: Contributions to Emotion Recognition Using Artificial Intelligence — Oct 2019 – Present

Master's Degree: Advanced Software Technologies in Communications — Oct 2017 – Jul 2019

Bachelor's Degree: Telecommunications Networks and Software — Oct 2013 – Jul 2017

Psycho pedagogical certification - 1st level — Oct 2013 – Jul 2016

Projects & Publications

Dissertation and Diploma project - Android System Localization App

Oct 2016 – Jul 2019

"Real time localization system of smart devices which run on Android". Technologies used: Android, Java, PHP, Python, REST Architecture, MySQL, Apache Server, JSON, Git, Github, Linux OS.

Awarded **2nd prize** at UPB, Scientific Communications Session 2019.

Ensemble models for multimodal sentiment – to be published in Scientific Bulletin Journal UPB

2024

This paper introduces **ImaText**, a new dataset for emotion recognition that combines texts and images from **DailyDialog** and **FER2013**. The proposed **multimodal** model and dataset provide a fresh perspective on the simultaneous classification of **text** and **image** data.

Generating FER models using ChatGPT– RRIA Journal

2024

This paper explores the use of ChatGPT in facial emotion recognition, streamlining development processes, making them easier and faster leading to the creation of high-performance models in just a few minutes.
More information can be found at: https://doi.org/10.33436/v34i2y202407

Enhancing Training Efficiency in Facial Emotion Recognition– IEEEXplore

2023

This paper explores the use of image filters to speed up image processing while maintaining the model's accuracy.
More information can be found at:
https://ieeexplore.ieee.org/document/10372600

Facial Emotions Recognition in Machine Learning – EEA Journal

2021

This paper provides an analysis of the psychological aspects of Facial Emotion Recognition (FER) and offers an overview of the datasets, algorithms, techniques and challenges regarding neural networks.
More information can be found at:
https://doi.org/10.46904/eea.21.69.4.1108010