Miruna Gabriela Paduraru

Software engineer @ Electronic Arts Romania

București, 30 ani, Feminin

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EXPERIENȚA PROFESIONALĂ

Electronic Arts Romania in București, România

Software engineer

Octombrie 2021 - Prezent | 2 ani 9 luni

-> I have worked on various internal projects for FC Game where I used my data science and machine learning skills.
-> I have given various presentations at internal events on the topic of AI/ML.
-> Last year I participated in the NeurIPS23 conference and also in other internal conferences organized by EA related to AI/ML.

UBISOFT Romania in București, România

Software engineer

Octombrie 2015 - Octombrie 2021 | 6 ani

-> I worked on Assassins Creed for ~6 months (Xbox One/PS4/PC platforms)
It was my first interaction with physics in game programming. I made the car react to the holes in the field so that it can change its direction taking into account the shape of the hole in the field.
-> I worked on Ghost Recon (tactical shooter video game; for Xbox One/PS4/PC platforms). I was part of the gameplay team. I implemented some systems of the game (XP progression system, score system, weapon system, items and sound system). I also worked on the online part of the game; good knowledge of the peer-to-peer network. I had to create some scripts/commands for automatic tests.
-> I also worked on game modes and gameplay features. I implemented the basic framework for one of the game modes.
-> Some presentations related to the published work as part of an internal program of Ubisoft.
Programming languages: C/C++, C#
Scripting languages: Python
Theoretical foundations used:
->Good knowledge of object-oriented programming and patterns
->Algorithmic and mathematical knowledge
->Unity Engine (I was a mentor for some students who came for a summer internship and worked in the Unity Engine)

Master working in București, România

Other activities, Other projects

Octombrie 2016 - Iulie 2018 | 1 an 9 luni

Coursera courses:
- Machine Learning
- Applied Machine Learning in Python

Google course:
- Machine Learning Crash Course with TensorFlow APIs

Experience in Computer Vision (with OpenCV) - developed during the dissertation thesis work.

My dissertation topic was "An AI for football using computer vision" - which consists of a three layer layout: Computer Vision Layer, Decision Making Layer and Input Sending Layer. This is an application that makes screenshots (FIFA game or video football game) and these will be analyzes with the help of the Computer Vision Layer (which detects the markers of the field, the position of the team players and the team they belong to, the position of the ball, also eliminates the crowd, etc.). All information from the Computer Vision Layer, its output represents the input of the Decision Making Layer, which will make decisions for the controlled player (in the case of the FIFA game): pass, shoot, tackle, dribbling etc. depending on the input received. These actions are forwarded to the Input Sending layer, which is actually a project integrated in this application that is a virtual joystick so we can see in the FIFA game the actions sent.

Known programming languages and technologies used: C/C++, Python, Tesorflow, OpenCV, C#, Java, ASM, profiling tools, CMake

Electronic Arts in București, România

C++ Software Engineer FIFA

Octombrie 2014 - Octombrie 2015 | 1 an

FIFA 16: I was in Gamemodes team for Xbox One/PS4/PC platforms. My main tasks were related to front-end, debugging and telemetry service. I worked on UI and implemented some pages functionality with input system.

Programming languages used: C/C++
Scripting languages: ActionScript

PREFERINTE TIP JOB

Locație	
Muncă de teren/ Călătorii de afaceri	✓

EDUCATIE

Informatica, Doctorat, București, România

University of Bucharest

2018 - prezent | 6 ani

The topic of the PhD thesis:
--Reinforcement learning applied in software engineering--
To build generic and completely customizable bots that can be applied in any software engineering application.
For example in the gaming area using Imitation Learning and Reinforcement Learning.
Papers:
[1] Ciprian Paduraru, Miruna Paduraru, "Automatic difficulty management and testing in games using a framework based on behavior trees and genetic algorithms", submitted to the 24th ICECCS 2019
[2] Ciprian Paduraru, Marius-Constantin Melemciuc, Miruna Paduraru, "Automatic Test Data Generation for a Given Set of Applications Using Recurrent Neural Networks", ICSOFT, Part of the Communications in Computer and Information Science book series
[3] Ciprian Paduraru, Miruna Paduraru, Alin Stefanescu, "Optimizing decision making in concolic execution using reinforcement learning", submitted to A-MOST2020
[4] Ciprian Paduraru, Miruna Paduraru, Alin Stefanescu, "RiverFuzzRL - an open-source tool to experiment with reinforcement learning for fuzzing", submitted to ICST 2021
[5] Ciprian Paduraru, Miruna Paduraru, "Techniques for skeletal-based animation in massive crowd simulations", Multidisciplinary Digital Publishing Institute (MDPI), Journal Computers, 2022
[6] Ciprian Paduraru, Miruna Paduraru, "Pedestrian motion in simulation applications using deep learning", International Conference on

Software Engineering, GAS Workshop
[7] Ciprian Paduraru, Miruna Paduraru, Stefan Iordache, "Using deep reinforcement learning to build intelligent tutoring systems", International Conference on Software Technologies, ICSOFT 2022
[8] Ciprian Paduraru, Miruna Paduraru, Alin Stefanescu, "Automated game testing
using computer vision methods", First International Workshop on Automated Software Engineering for Computer Games (ASE4Games 2021)
[9] Ciprian Paduraru, Miruna Paduraru, Alin Stefanescu, "RiverGame - a game testing tool using artificial intelligence", 15th IEEE Conference on Software Testing, Verification and Validation, ICST 2022
[10] Ciprian Paduraru, Miruna Paduraru, Camelia Patilea, "Task distribution and human
resource management using reinforcement learning", First International
Workshop on Automated Software Engineering for Computer Games (ASE4Games 2022)
[11] C. Paduraru, M. Paduraru, A. Stefanescu, "Traffic light control using reinforcement learning - a survey and an open source implementation", 8th International Conference on Vehicle Technology and Intelligent Transport Systems, VEHITS 2022
[12] C. Paduraru, M. Paduraru, S. Iordache, "Continuous procedural network of roads generation using L-Systems and Reinforcement Learning", International Conference on Software Technologies, ICSOFT 2022
[13] C. Paduraru, M. Paduraru, A.-E. Blahovici, "Transfer learning of cars behaviors from reality to simulation applications", 2nd International Workshop on Automated Software Engineering for Computer Games (ASE4Games 2022)

Informatica, Master / Studii postuniversitare, Bucharest, Romania

University of Bucharest

2016 - 2018 | 2 ani

Master of Science in Artificial Intelligence

Informatica, Facultate (terminat), BUCURESTI

University of Bucharest

2013 - 2016 | 3 ani

APTITUDINI

LIMBI VORBITE

Română	nativ
Engleză	avansat