

# FLORENTINA BRATILOVEANU

## PERSONAL DATA

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PLACE AND DATE OF BIRTH: ROMANIA | 2 SEPTEMBER 1992  
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## EDUCATION

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*September 2017* MSc IN COMPUTER SCIENCE, **The University Politehnica of Bucharest**  
*Artificial Intelligence Specialization*

*September 2015* BSc IN COMPUTER SCIENCE, **The University Politehnica of Bucharest**  
*Compilers Specialization*

*July 2011* HIGHSCHOOL, “Traian” National College, DROBETA TURNU-SEVERIN, ROMANIA  
*Mathematics-Informatics Specialization*

## WORK EXPERIENCE

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<i>Current</i>	<b>JUNIOR SOFTWARE ENGINEER AT BITDEFENDER, ROMANIA</b> I AM CURRENTLY WORKING IN CYBER THREAT INTELLIGENCE LAB IN ORDER TO DEVELOP FEATURES FOR THE SCANNING ENGINE AND THE EMULATOR. THE MAIN TOOLS USED TO DEVELOP THE ENGINE ARE C AND C++ COMBINED WITH OPERATING SYSTEMS AND ASSEMBLY.
<i>Jan 2017 - Apr 2018</i>	<b>SOFTWARE ENGINEER AT HARMAN INTERNATIONAL, ROMANIA</b> WORKED IN AUTOMOTIVE FIELD FOR BMW EMBEDDED SYSTEMS, IMPLEMENTING THE INTERNAL LOGIC OF MEDIA PLAYER COMPONENT FOR PLAYBACK OR MEDIA BROWSING USING C++ AND QT FRAMEWORK.
<i>Jan 2016 - Apr 2016</i>	<b>JUNIOR DEVELOPER AT TEMENOS, ROMANIA</b> WORKED WITH PHP, HTML, CSS, J2EE, JBOSS, MAVEN, SVN FOR DEVELOPING FINANCIAL SOFTWARE.
<i>Jul 2015 - Sept 2015</i>	<b>JUNIOR R&amp;D ENGINEER AT FOTONATION, ROMANIA</b> WORKED WITH MATLAB FOR DEVELOPING MACHINE LEARNING ALGORITHMS AND TORCH FOR DEVELOPING CONVOLUTIONAL NEURAL NETWORKS.
<i>Jun 2014 - Sept 2014</i>	<b>JUNIOR SOFTWARE DEVELOPER AT IXIA, ROMANIA</b> WORKED WITH PYTHON FOR DEVELOPING AUTOMATION TOOLS AND C# OR EXTJS FOR MODIFYING EXISTING GRAPHICAL USER INTERFACE.
<i>Jun 2013 - Jul 2013</i>	<b>INTERN AT ACS INTERACTIVE, ROMANIA</b> WORKED WITH HTML, CSS, PHP, MYSQL FOR DEVELOPING SMALL WEB PROJECTS.

## VOLUNTEER EXPERIENCE

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<i>Jun 2014 - present</i>	<b>MEMBER AT ROSEdu, ROMANIA</b> FOR THE LAST THREE SUMMERS, I HAVE BEEN ORGANIZING <a href="#">ROSEdu SUMMER WORKSHOPS</a> . THIS EVENT IS DEDICATED TO STUDENTS WHO WANT TO IMPROVE THEIR TECHNICAL SKILLS IN A MORE RELAXING ATMOSPHERE.
<i>Oct 2013 - Jun 2015</i>	<b>TRAINER AT EDUSFERA, ROMANIA</b> DIGITAL KIDS IS A PROJECT PROPOSED BY EDUSFERA ASSOCIATION AND CONSISTS OF PROGRAMMING COURSES FOR CHILDREN, WHERE THEY CAN LEARN PROGRAMMING LANGUAGES LIKE SCRATCH OR JAVASCRIPT. MY RESPONSIBILITIES ARE TO TEACH DIFFERENT SUBJECTS AND TO PROVIDE EXPLANATIONS OR SUPPORT FOR CHILDREN AGED 8 TO 14.
<i>Nov 2012, 2013</i>	<b>VOLUNTEER AT SONORO, ROMANIA</b> SONORO FESTIVAL IS AN EXCEPTIONAL CULTURAL EVENT, DESIGNED TO PROMOTE CHAMBER MUSIC. MY RESPONSIBILITIES INCLUDED FLYER DISTRIBUTION AND ORGANIZING PEOPLE AT THE EVENT TO FIND THEIR PLACES.

## COMPUTER SKILLS

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INTERMEDIATE KNOWLEDGE:	JAVASE, JAVASCRIPT, ANDROID, PHP, MYSQL, LINUX, HASKELL, SCHEME, LUA&TORCH, LATEX, GIT, SVN
ADVANCED KNOWLEDGE:	C, C++, PYTHON, PYTORCH

## PROJECTS

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<i>LCPL to C Translator</i>	THE SYNTACTIC AND SEMANTIC ANALYSIS WAS ALREADY IMPLEMENTED, THUS I HAD TO IMPLEMENT THE TRANSLATION FROM LCPL TO C LANGUAGE.
<i>LLVM Code Generator</i>	LLVM WAS USED TO GENERATE INTERMEDIATE CODE FOR THE LCPL LANGUAGE. I HAD TO DESIGN SPECIFIC EXPRESSIONS FOR EACH LLVM EXPRESSION.
<i>Particle Swarm Optimization</i>	IN MY CASE, I USED THIS ALGORITHM FOR MINIMIZING SOME OBJECTIVE FUNCTIONS. THE ALGORITHM IS EFFECTIVE BECAUSE IT IS A POPULATION BASED STOCHASTIC OPTIMIZATION TECHNIQUE. THE SIMULATION WAS IMPLEMENTED USING JAVA.
<i>TSP with Ant System</i>	ANT COLONY OPTIMIZATION ALGORITHM USED IN GRAPHS IS A GOOD ALTERNATIVE TO THE CLASSICAL EXHAUSTIVE SOLUTION IMPLEMENTED WITH BACKTRACKING. THUS, IT CAN GET CLOSE TO THE OPTIMAL SOLUTION FOR THE TRAVEL SALESMAN PROBLEM. THE SIMULATION WAS IMPLEMENTED USING JAVA.
<i>Playing games with Q-Learning</i>	THE IDEA OF THE PROJECT IS TO USE AN ALGORITHM CAPABLE OF LEARNING AN ACTION-VALUE FUNCTION FOR ANY GAME THAT HAS A MARKOV REPRESENTATION WITHOUT HAVING ANY PRIOR KNOWLEDGE. THE PROJECT WAS IMPLEMENTED IN JAVA AND TESTED WITH HANOI TOWERS AND TREASURE HUNT.
<i>Pickup Pack</i>	PICKUP PACK IS AN APPLICATION WRITTEN IN ANDROID, PHP AND MYSQL FOR SENDING PACKS FROM ONE TOWN TO ANOTHER. I USED ANDROID FOR GRAPHICAL INTERFACE, PHP AS A SERVER-SIDE LANGUAGE AND MYSQL FOR INFORMATION PERSISTENCE.
<i>Robot Path Planning</i>	THE PURPOSE OF THE PROJECT WAS TO PLAN THE PATH OF TWO ROBOTS INTO A LABYRINTH OF ROOMS. THIS APPLICATION WAS MADE USING SCHEME.
<i>Network Simulation</i>	NETWORK SIMULATION IS AN APPLICATION WRITTEN IN THREE DISTINCT LANGUAGES: HASKELL, SCHEME AND PROLOG. THE PURPOSE OF THE PROJECT WAS TO OBSERVE THE DIFFERENCE BETWEEN IMPLEMENTATIONS AND PARADIGMS, THUS I HAVE GAINED SKILLS IN ADAPTING TO DIFFERENT PROGRAMMING LANGUAGES.

## LANGUAGES

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ENGLISH: FLUENT  
FRENCH: BASIC KNOWLEDGE  
ROMANIAN: MOTHERTONGUE

## INTERESTS AND ACTIVITIES

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TECHNOLOGY, PROGRAMMING, ARTIFICIAL INTELLIGENCE  
TEACHING, HIKING