



# **Ionut-Alexandru Cimpeanu**

Data nasterii:

# EDUCATIE SI FORMARE PROFESIONALĂ

10/2014 - 07/2017 Bucuresti, România

**DIPLOMA DE LICENTA** Academia de Studii Economice

Site de internet <a href="https://csie.ase.ro/en/homepage-english/">https://csie.ase.ro/en/homepage-english/</a>

10/2018 - 07/2020 Bucuresti, România

**DIPLOMA DE MASTER** Academia de Studii Economice

Site de internet <a href="https://csie.ase.ro/en/homepage-english/">https://csie.ase.ro/en/homepage-english/</a>

10/2020 - 09/2023 Bucuresti, România

**DOCTORAT** Academia de Studii Economice

Site de internet <a href="http://doctorat.ase.ro/">http://doctorat.ase.ro/</a>

01/11/2024 - ÎN CURS Bucuresti, România

NIVEL 1 - MODULUL PSIHOPEDAGOGIC Academia de Studii Economice

Site de internet https://dppd.ase.ro

#### EXPERIENŢA PROFESIONALĂ

11/2023 - ÎN CURS București, România

**FULL STACK ENGINEER LUMINOS LABS** 

Proiect: Magazin Virtual

Lucru cu .NET, Entity Framework Lucru cu ZNode Lucru cu SQL Server Lucru cu Razor Pages, JQuery, TS

19/02/2024 - 18/02/2025 Bucuresti, România

#### ASISTENT UNIVERSITAR ACADEMIA DE STUDII ECONOMICE

- sustinere seminarii de Tehnologii Web
- sustinere seminarii de Retele de Calculatoare

02/2023 - 11/2023 Bucuresti, România

# .NET DEVELOPER GLOBALLOGIC

#### Proiect:

HealthCare

- lucru cu REST API, C#, .NET Framework, Unit Test
- lucru SQL Server, RavenDB
- lucru cu Azure, Cloud Services

#### Responsabilitati:

- deploy API in Azure
- deploy SQL scripts

- support la problemele clientilor in productie

07/2021 - 11/2022 Bucuresti, România

#### FULLSTACK DEVELOPER OPEN DIGITAL SERVICES ROUMANIE

Proiecte:

Opera Lease (5 luni)

- C#, HTML, CSS si JS (Jquery)
- ASP.NET MVC. scripturi pentru baza de date sql (Microsoft SQL Server)
- bug fixing

Opera Next (1 an)

- dezvoltare backend (RESP API) cu C# si frontend cu Vue.js (SPA)

Dapper, EntityFramework, Typescript, KendoUI

Responsabilitati:

- oferire suport echipei clientului la update de versiune
- intocmire documentatie pentru functionalitate noua
- sedinte cu clientul atunci cand nu a inteles o dezvoltare si are nevoie de explicatii suplimentare

08/2019 - 07/2021 Bucuresti, România

#### JUNIOR SOFTWARE DEVELOPER TOTALSOFT

Dezvoltare funcționalitate nouă în C#

Rescriere din Delphi in C#

Scripturi pentru baze de date in SQL (Microsoft SQL Server)

Suport pentru departamentul Delivery şi clienţi

Proiecte: Charisma HCM

Responsabilitati:

Oferire suport pentru echipa de implementare la update de versiune aplicatie

Colaborarea cu diferiti clienti si deblocarea lor la eventualele probleme

Intocmire documentatie pentru functionalitati noi dezvoltate

09/2018 - 05/2019 Bucuresti, România

# ABBYY & LASERFICHE SOFTWARE DEVELOPER COLLABRIAN DESIGN & TECHNOLOGY

Dezvoltare de proiecte cu Abbyy (FlexiLayout si FlexiCapture) si Laserfiche (Workflow si Quick Fields).

Dezvoltare de diferite scripturi cu C# pentru Laserfiche/Abbyy.

Dezvoltare de aplicatii in Visual Studio cu C# si utilizarea lor in diferite proiecte Laserfiche.

Responsabilitati:

- colaborare cu echipa clientului pentru a oferi suport la eventualele probleme
- bug fix

#### COMPETENTE LINGVISTICE

Limbă(i) maternă(e): ROMANA

Altă limbă (Alte limbi):

	COMPREHENSIUNE		VORBIT		SCRIS
	Comprehensiune orală	Citit	Exprimare scrisăConversație		
ENGLEZA C1		C2	C1	C1	C1
FRANCEZA B1		B1	В1	B1	В1

Niveluri: A1 și A2 Utilizator de bază B1 și B2 Utilizator independent C1 și C2 Utilizator experimentat

#### COMPETENTE DIGITALE

C# | .Net | Javascript | REST | Git | HTML | CSS | SQL (SQL Server) | OOP | jquery | Data Structures | Entity Framework Core | BOOTSTRAP | VueJS | ReactJs | Visual Studio

#### PERMIS DE CONDUCERE

#### Permis de conducere:B

#### **PUBLICATII**

2021

## **Business Activities Using Chatbots**

In this article, we present a short introduction about chatbots and we describe two original chatbot solutions used in education and tourism. In the first part of the article, we describe the life cycle of a chatbot, presenting the steps needed for its development. We continue with the enumeration and description of the design techniques that developers are using in making the chatbots. The article also presents the architecture of two original chatbot solutions, the design methods and techniques used in their development and implementation and the usefulness and benefits of these two models. Moreover, possible future improvements of these chatbots for having an increased performance are presented. As a conclusion, we highlight the concern of business people for the use of chatbots in any field of activity and the progress that economic activity registers through their use.

2021

# **Challenges and Ethical Solutions in Using the Chatbot**

Artificial intelligence is making its mark on more and more different areas of our lives. No matter what business we are talking about, a smart application offers customers solutions and added value in a more digitalized and automated world. In business, those who do not participate in the development and implementation of innovative solutions exclude the company from the market. However, it uses these necessary IT solutions and ethical challenges related to applicable AI applications, managing and responsibly using the information stored in the applications, the content of the messages, and the way users relate to other users and the chatbot. The paper is structured in four sections. In the Introduction, we talked about the chatbot, about its necessity and usefulness, and about the permanent appearance of some ethical challenges related to the use of the chatbot in different fields of activity. In the next section, we listed a number of ethical challenges that chatbot developers / users face detailing these challenges and setting an example of concrete ethical / unethical approaches. Section III offers solutions to some of the ethical challenges found in the paper. The conclusions provide an overview of the topics addressed in the paper and the directions of perspective in the ethical approach to the issue.

2022

# **Human Resources Chatbots: A Comparison Study**

Processing large amounts of data that are often collected by different departments and accessed using a multitude of programs, the need to streamline processes and reduce data processing time, the desire to reduce costs or the pressure for the workforce to perform in a short time repetitive processes that require a high degree of accuracy are professional tasks solved not long ago by employees. The chatbot is the saving, innovative, intelligent solution that comes to the aid of companies, and people in solv ing all the tasks listed above, the man being only an observatory that brings improvements/corrections to the intelligent application. This article begins by highlighting the need for a chatbot in HR. The following shows how we thought and designed the Guardian chatbot in this sector of activity, but also additional ideas that we identified and which can be applied to improve the chatbot. The next chapter identifies the pros and cons of comparing the Guardian chatbot with three other chatbot models. Finally, the usefulness of the article is shown, which serves as a model of approach and finding solutions in thinking/designing/ developing a chatbot in the field of HR and even expanding its use in all sectors of activity. The IT solution is designed to respond to the needs of the users regarding the product, to the needs of the company, to the number of people who would use the solution, to the price of the IT solution with the demand and supply on the labor market.

2022

# <u>Analysis of the Circular Economy: A Comparative Study among Romania, France, Spain and The United Kingdom</u>

The field of the circular economy has been particularly important in recent years in economic articles. In this context, the present article analyzes five indicators of the circular economy for Romania, France, Spain, and the United Kingdom for 10-15 years, making a comparison between Romania and these three European countries based on these indicators. In this article, we used diagrams, graphs and tables in which information was collected from the circular economy, but also from other branches of the economy. The statistics obtained reflect the degree of concern in this direction and the policies applied by governments in the recycling/reuse of waste. Various branches of the economy were analyzed, original solutions implemented, as well as the effect of the implementation and use of these solutions in the economy of the respective countries for 10-15 years, allowing us to observe the annual evolution of the changes in the economy. The end of the article includes solutions that can be applied in Romania in the field of the circular economy, measures that have been successfully applied in other countries that have made visible progress in this field, and understood the need for the circular economy. The benefits of the circular economy for each country and at the global level are multiple, translating into the reuse and recycling of waste that becomes raw materials in other areas of the economy, a protected and less polluted environment, the development of all branches of the economy through the implementation and application of programs/projects through which raw materials existing in limited quantities, become sufficient now by rethinking the use of waste/materials in obtaining products necessary for the economy.

## **Use and Design of Chatbots for the Circular Economy**

The fact that advanced technologies and their economic applications have generated increasing resource costs justifies the transition from a linear approach to a circular one in order to control these costs. From this perspective, this study presents how artificial intelligence can help achieve this goal. Therefore, at the beginning of this article, we begin with an introduction and brief review of the literature on the subject. Our research procedure involved the combination of qualitative and quantitative forms of research using mixed methods. In this study, we presented and analyzed five chatbot solutions used in the field of the circular economy. The analysis of these five chatbots helped us design, in the second part of this paper, the procedures for data collection, training, development, and testing of a chatbot using various natural language processing (NLP) and deep processing (DP) techniques. Additionally, we include discussions and some conclusions regarding all aspects of the subject to see how they can help us in future studies. Furthermore, our future research with this topic will have as the goal the effective construction of a chatbot dedicated to the circular economy.

2023

# **The Chatbots and Their Role in the Progress of Society**

In this article, we made a short introduction to chatbots that shows the need for development and their implementation in all economic branches. We covered what a chatbot is and how it works, we made a brief history of its evolution, listed and described the benefits of using the chatbots, but also presented their limitations. Additionally, the article describes five chatbot models developed and implemented in different fields of activity and presents comparisons of the functionalities and applicability of these solutions. In conclusion, we emphasize the interest and concern of business people to expand the use of chatbots in all fields of activity, emphasizing its major contribution to economic progress and the development of society as a whole. Keywords: Chatbots, Development, Implementation, Ethics, Assessment, Business

2024

#### Practical Approach for Smart and Circular Cities: Chatbots Used in Waste Recycling

Sustainable development, smart waste management, and circular economy principles are paramount to the significant worldwide trend of smart city-related research and projects. The basic hypothesis of our research is that artificial intelligence (AI)-based IT applications have an increasingly important role in the field of smart cities in terms of issues related to waste management. In our present article, we set out to analyze the characteristics of chatbot applications dedicated to waste recycling in the case of smart cities and propose some innovative ideas to improve the efficiency of such applications. Based on the consultation and analysis of a whole series of chatbot-type applications used to facilitate the recycling activity, we systematically analyze and evaluate five illustrative examples of chatbots employed in the context of material recycling. We provide performance comparisons in a table based on specific relevant criteria. Furthermore, the detailed analysis of these chatbots has led to the idea of improving the performance of this type of application. In this sense, we propose a series of innovative concepts that can be successfully implemented in future chatbots dedicated to the field of the circular economy. Here, we detail the innovative ideas that can promote the circular economy and capitalize on the potential of chatbots in the waste recycling activity. We also identify some possible limitations of these new ideas that we propose to be implemented. As for future research directions, our goal is to develop a chatbot dedicated to improving waste recycling practices within the framework of a smart city. Such innovation holds promise in improving sustainability efforts and fostering environmental stewardship within urban environments.

# CONFERINTE SI SEMINARE

14/05/2021 - 15/05/2021 Bucuresti

# **Experimental Results Regarding the Efficiency of Business Activities Through the Use of Chatbots**

In this article we take into consideration the chatbots, describing some models used in different fields of activity comparing how to achieve them, the estimation effort given by the specialists who worked on their implementation, the benefits, and efficiency at work. A chatbot is a computer program that has the role of connecting a verbal or written dialogue with a person. Over time, chatbots became necessary in all areas. They are used in healthcare, education, nutrition, transportation, finance, tourism, relaxation, and rest. The trend of companies is to replace the customer service department with chatbots that are efficient, do not mean very high costs, and work 24 h a day helping employees with personalized explanations, sending messages, or emails regardless of location, with possibility to upload some documents in the application. Chatbots are secure, and for a user to log into the chatbot, he/she must go through several steps. In this article we present the way of working, original solutions, and experimental results analyzed in the development of three chatbots from different fields. Conversational skills are described, but the emphasis are on the four dimensions of the chatbot development in the chosen areas of activity: interaction, integration, testing, and analysis. Moreover, we want to highlight the concern of business people for using the chatbot in any field of activity, streamlining economic activities, and achieving the success of the chatbot.

**Link** https://link.springer.com/chapter/10.1007/978-981-16-8866-9 27#chapter-info

# Using artificial intelligence for the benefit of the circular economy

When we speak of solutions that can be designed, developed, and implemented to solve a determined problem in a specific domain, human intelligence shows that it cannot be kept within regular bounds. In addition, it consistently manages to produce innovative elements that increase efficiency, applicability, and abstraction, with the drawback of increasing the overall underlying complexity. As technology advanced and time passed, in every system there was a visible need to automate manual, repetitive, and mundane tasks to help save time and let humans focus on more important things. A practical example of such a system is the banking system. In this paper, our aim is to present how Artificial Intelligence (AI) helps this field through the use of chatbots. In this sense, we present and analyse five examples of such applications that are already used in the international banking system, highlighting the main benefits they bring. Finally, we present some conclusions regarding the chatbot systems analysed, acknowledging that the future will increasingly belong to IT applications of this kind

Link https://sciendo.com/article/10.2478/picbe-2022-0029

26/05/2022 - 27/05/2022 Bucuresti

# Applications that Use Recurrent Neural Networks and Their Impact on People's Lives

Human intelligence has no limits and constantly impresses with innovative solutions that increase in complexity, applicability, and efficiency. Over time, a lot of smart applications have been substantially improved by including artificial neural networks. Thus, they came to perform tasks that only humans could accomplish. Other smart applications made decades ago are the starting point for other more complex smart solutions in which researchers have invested time, money, courage, patience, desire for progress and knowledge, and research. In this paper we highlighted the importance of using recurrent neural networks, we exemplified the use of recurring neural networks in two applications in different fields of activity, and we listed the benefits that can be obtained by using applications, the limits of artificial neural networks, the need for human intervention to obtain desired results. My work is inspired by the recent development in neural translation using the attention mechanism in order to learn long sequences and improve the performance of translation from one language to another. Using this approach, I set out to provide arguments to highlight the effectiveness of implementing solutions based on artificial neural networks, but also the fact that in all intelligent solutions based on this network and which have been created so far, the human factor is indispensable.

Link https://link.springer.com/chapter/10.1007/978-981-19-6755-9 16#chapter-info

22/03/2023 - 24/03/2023 Bucuresti

# **Banking Chatbots: How Artificial Intelligence Helps the Banks**

When we speak of solutions that can be designed, developed, and implemented to solve a determined problem in a specific domain, human intelligence shows that it cannot be kept within regular bounds. In addition, it consistently manages to produce innovative elements that increase efficiency, applicability, and abstraction, with the drawback of increasing the overall underlying complexity. As technology advanced and time passed, in every system there was a visible need to automate manual, repetitive, and mundane tasks to help save time and let humans focus on more important things. A practical example of such a system is the banking system. In this paper, our aim is to present how Artificial Intelligence (AI) helps this field through the use of chatbots. In this sense, we present and analyse five examples of such applications that are already used in the international banking system, highlighting the main benefits they bring. Finally, we present some conclusions regarding the chatbot systems analysed, acknowledging that the future will increasingly belong to IT applications of this kind

Link https://sciendo.com/it/article/10.2478/picbe-2023-0153