ALGEBRA
INTERNATIONAL SCHOOL

GET INSPIRED
AND JOIN THE MOST INNOVATIVE SUMMER PROGRAM IN EUROPE!

20 providing top quality education for 20 years

undergraduate (bachelor) study programs **4**

6 graduate (master) study programs

faculty members and experts **140**

900 + students at higher education

students annually – career programs, courses, undergraduate, graduate and MBA programs **15.000**

+ 30% annual growth of freshmen in computer science

of graduates employed within six months after graduation. **96%**

The best Croatian professional higher education institution

The University College is the flagship of the largest private educational organization in Republic of Croatia and the region - Algebra group - founded in 1998 and present today in more than 20 cities across Croatia. Today, the University College carries out four undergraduate professional programs and six graduate professional programs:

What makes us different?

- Our students acquire knowledge necessary for rapidly growing industries that are based on digital technologies
- We develop programs according to the needs of employers and technological development
- We are proud of our Labos, the first professional gaming studio in the Southeastern Europe

Undergraduate professional program	Graduate professional program
BACHELOR	**MASTER**
Software engineering	Software engineering
System engineering	System engineering
Multimedia computing	Game development
Digital marketing	Data science
	Digital marketing
	e-Leadership MBA

ACCREDITATION & CERTIFICATES

1 ESG

We offer professional study programs of the highest quality in Croatia according to the results of the evaluation of the quality assurance system carried out by National Agency for Science and Higher Education — ASHE.

eSKILLS FOR JOBS 201

The "eSkills for Jobs" initiative encourages the development of ICT profession in the EU and the DigitalEurope organization has entrusted us with the implementation of their project in Croatia since 2012.

nvao
meets the quality requirements of NVAO

We are the only institution in Croatia that has met the quality criteria of the Dutch-Flemish accreditation agency NVAO.

FER | Approved 2013-2016

We are the only professional study program whose quality is continuously evaluated by FER and we have met the requirements for certification ever since 2009.

Microsoft Partner
2014 Partner of the Year Winner
Learning

We are the best educational organization in the world among 3,200 organizations evaluated by Microsoft!

OUR PARTNERS

ALGEBRA UNIVERSITY COLLEGE COOPERATES WITH RENOWNED HIGHER EDUCATION INSTITUTIONS,

MORE THAN 100 AS DESIGNATED ON THE MAP:

OUR ACADEMIC PARTNERS

Algebra University College is a member of the most renowned academic IT initiatives

msdn academic alliance

Microsoft Imagine Academy
Program Member

CISCO
Networking Academy

IBM
Academic Initiative

ORACLE
ACADEMY

EMC² Academic Alliance
PROVEN PROFESSIONAL

vmware ACADEMIC PROGRAM

RED HAT ACADEMY   redhat

tableau

FORTINET

paloalto NETWORKS

SAP

HubSpot

INTRODUCTION

At Algebra's International Summer School, **we believe in quality and efficiency of teaching, great programs,** great teachers and the best experiences in Croatia – the greatest European country to spend your summer.

If you want to learn about digital marketing strategies and user behavior, figure out how digital is transforming the way we live and work, how to develop mobile applications, all about data security or create stories using data and visualization tools, maybe learn about the "dark side" of security and how to use "the force" the right way, you have come to the right place!

Welcome to the Summer School for international students in Europe!
By accepting the certification and the newest technology as our guidelines, we have consciously taken the obligation to constantly upgrade and adjust our courses and educational program with the demands of the industry. However, it is not about a race with technology, it is about identifying and predicting global technological and business trends which have shaped global labour markets and will continue to do so in the future.

All work and no play makes Jack a dull boy!
Our Summer School program is anything but boring, it's more than lectures and workshops – you'll have time to meet outstanding and ambitious colleagues as we share the magic of Croatia with you. We want to introduce you to some of Croatia's world-renowned places and its rich cultural and natural treasures. The program offers a fantastic summer experience in the cities of Zagreb and Šibenik and enables the participants to explore the rich cultural and historical heritage of Croatia.
Don't worry, you will have a great time while staying in Croatia.
Plenty of fun, excellent food, unique events, art, but also a genuine summer atmosphere, await you on the streets of Croatia's capital Zagreb and a beautiful city of Šibenik on Croatia's coast.

Make your summer 2018 unforgettable! Join us for the best summer abroad program in Europe!
Let's create digital future together!

Algebra International Summer School Team

CHOOSE YOUR SUMMER COURSES

1 **DIGITAL MARKETING**
NEW WAYS OF COMMUNICATION

2 **CREATING A DETAILED PROJECT IN 3D**
FROM THE VERY BASICS TO POSTPRODUCTION OF THE FINAL IMAGE

3 **MOBILE APPLICATION DEVELOPMENT**
FROM IDEA TO CREATION

4 **DATA-DRIVEN STORYTELLING**
CREATE STORIES USING BIG DATA AND ADVANCED VISUALIZATION

5 **CYBER SECURITY**
THE FORC3 IS STRONG WITH THIS ONE

6 **DIGITAL SCULPTING FUNDAMENTALS**
LEARN THE BASICS OF SCULPTING IN ZBRUSH

DIGITAL MARKETING
NEW WAYS OF COMMUNICATION

The course will introduce students to digital marketing strategies and user behaviour, from content marketing, search, social to analytical tools used to track the success of digital campaigns. The digital revolution completely changed the way organizations approach their core business from creating products and services, managing customers to marketing and sales. Digital platforms introduce new ways of communication with end customers allowing companies to tailor products and services to customer's needs in a more agile manner. In a way, digital marketing changed traditional marketing, making it fast, more precise, real-time and data-driven. The tools marketers use every day allow us to execute digital campaigns targeting audiences across the world much more efficiently and with smaller budgets than traditional marketing. In this course, we're going to examine the basic concepts of Digital Strategy, starting from understanding the company business model, product, customer, market and business goals as well as how to accomplish their marketing goals on digital platforms.

During the course, students will acquire Google AdWords and Google Analytics Certificates

The topics covered by the Summer School are:

- Buying Personas, Buyers Journey, Consumer Micro moments: understanding the consumer
- Digital Marketing Essentials: cross-platform communication, goals, and metrics
- Web optimization – elements of efficient landing pages, optimizing purchase funnels, creating useful content, user research techniques SEO
- Advertising on Google AdWords – SEM, Google Display Network, Mobile Advertising
- YouTube advertising
- Measuring Success with Google Analytics
- Social Media Channels
- Digital Strategy essentials – how to position brand on digital channels

INNOVATIVE CROATIA

Inventor of PARACHUTE
Faust Vrančić
(1551–1617)

CREATING A DETAILED PROJECT IN 3D
FROM THE VERY BASICS TO POSTPRODUCTION OF THE FINAL IMAGE

Students will learn the advanced principles of creating a 3D project, taking into consideration the technical and work-related challenges. The entire process will go through each step of production in detail, crafting the final image as close to photorealism as possible.

Each project starts with an idea, notion of bringing something to life, that as such exists or will exist in a form of visual expression. As visual beings, we must commit first and foremost to the recognition of the visual communication. If we fail to accomplish that, the message will be lost to the viewer. Therefore, every step of the way in a 3D project is followed by extensive research on the subject, numerous iterations and fine tuning that culminates in a desire to make it flexible for change and improvement. The course is designed to introduce students to the 3D, ranging from modelling, texturing, simulation, lighting, rendering and postproduction. Although a broad field, the course will be a focused effort to specifically address practical and proven ways of preparing a project from start to a final image. The course will continue to elaborate on certain dependencies between stages in production, flexibility and preparation, elements and postproduction. Each step and action will be addressed from a standpoint of all included elements preparing the students for an easier stage in postproduction and final image processing.

The entire process will be specific to the project due to the time limitations, yet the methodology will far outweigh the scope of the project and can be implemented in current 3D workflows from freelance to studio work. The knowledge given will further expand on the advanced use of techniques and simulation effects in order to cut the production time and avoid manual and tedious work in 3D.

Further efforts will be focused towards crafting details and preparing them for the final stages of image manipulation. Each step into the production should by then have its place in the environment that represents the visual goal of the project. From preparation of the postproduction and from the postproduction standpoint, every information is a valuable stepping stone in the image manipulation. Translated to postproduction it represents easier and more streamlined way of altering, retouching and colour-grading of the final image, which is suitable for fine tuning and change requests.

INNOVATIVE CROATIA

Father of DACTILOSCOPY

– fingerprinting as a method of identification

Ivan Vučetić (1858 – 1925)

MOBILE APPLICATION DEVELOPMENT
FROM IDEA TO CREATION

The use of mobile technology is an opportunity to expand customer relationships. Your cellphone is always on, always at hand and knows where you are. Mobile phones are a useful tool that adds value. The industry of mobile applications definitely has a prosperous future.

The course is focused on preparing participants for independent work and further learning. After successful completion of the course, participants will be able to implement applications that use dialogs, menus, user preferences, background services, sqlite database, google maps and location services, web services, phone and SMS features.

Android application development course is performed in Java programming language and is carried out in Android Studio integrated development environment using Android emulator. Hence, its requirement is basic knowledge of programming and Object-oriented paradigm (Encapsulation, Inheritance, Polymorphism, Abstraction), but it is not restricted to Java programming language.

The course starts with the presentation of the Android architecture through Android Software Stack, basics of Android Operating System and a Virtual machine used in the emulator. Further, it is concentrated on basic components to implement scalable Android applications (Activity, Service, BroadCast Receiver, Content Provider and Intent). All the building blocks are covered in great detail with many examples and variations in layout presentations.

INNOVATIVE CROATIA

m-Parking

– 1st global mobile parking payment system

Infoart group

DATA-DRIVEN STORYTELLING
CREATE STORIES USING BIG DATA AND ADVANCED VISUALIZATION

Storytelling skills are considered to be among most important skills today, the skills we all should practice, and when empowered with data they can create very powerful tool in many industries including digital marketing.

Our society is based on "stories" that are the basis for the way we communicate, live and dream. In the introduction to the lecture, a short section of technology development will be elaborated with a special focus on EDU / government / business (learning by doing) and data science, as well as advanced visualization. We will describe and conduct a characteristic data science project and show some techniques related to the big data infrastructure, and the way we use mathematical rules for various activities in the phases of these projects. In the lecture, through a practical view, we plan to show how to use data and advanced visualization tools combined with large data sets to gain content and the way we can tell the story with the help of this content.

The course aims to introduce students to think out of the box and create interesting and, more important, relevant stories using data. In order to do that students will master different techniques of visualization and exploratory data analysis. Students will acquire a necessary theoretical and practical knowledge and skills in the field of data science that is characterized by large volumes of data. Apart from technique, students are introduced to a variety of tools for visualization and exploratory data analysis.

INNOVATIVE CROATIA

Inventor of DOUBLE ENTRY BOOKKEEPING

Benedikt Kotruljević
(1416 – 1469)

CYBER SECURITY

THE F0RC3 IS STRONG WITH THIS ONE

Get to know the "dark side" of security and how to use "the force" the right way. In this course, the students will learn how to use their computer without exposing it to most of the threats lurking outside, whether this is simple Internet browsing, "innocent" usage of publicly available Wi-Fi or usage of "secure" corporate network.

Cybersecurity is an ever-evolving field with opportunities waiting for everyone with the interest to learn more and develop their skills in this interesting and demanding topic. This course will show the basic steps most of the hackers would go through while compromising the victim's computers and it will define some interesting known and less known attack vectors and protections against them.

Students will not only have a chance to compromise many vulnerable machines by using different attack vectors, they will also gain knowledge that will help them protect their computers and networks against the attacks covered in this course. The course will also cover some of the latest attacks and methods used in the wild.

The prerequisite for this course is the understanding of the basics of operating systems, network and web applications. Nevertheless, the important concepts will be delivered during the class as a refresher. Everyone brave enough to step into this class will be rewarded with the knowledge that is heavily sought after not only in military/government sector, but also in any security-aware corporation/company.

Precursor of atomic theory and contributor to astronomy

Ruđer Bošković (1711 – 1787)

INNOVATIVE CROATIA

DIGITAL SCULPTING FUNDAMENTALS
LEARN THE BASICS OF SCULPTING IN ZBRUSH

Digital Sculpting with Pixologic Zbrush has become the Industry standard for creating state of the art visuals for film, television and games alike. More than that it is the go-to software for any kind of sculptural and elaborate objects for purposes of 3d printing, rapid prototyping, prop and mask making for film and many other uses. The software provides unparalleled freedom to create rich and highly detailed digital models and sculptures in numerous art styles and expressions. Sculpting is done using a pressure sensitive tablet and is very akin to traditional sculpting and drawing and all of the traditional art techniques are incredibly useful and relevant.

In this course, students will become familiarized with the Zbrush user interface and the most commonly used sculpting tools and practices. The course will be focused on using few very powerful sculpting tools and techniques in Zbrush which make for a straightforward sculpting style and provide fantastic foundations for any future artistic projects. Students will be taken through the complete process of organic sculpting using various photo references. The course will explain the importance of silhouette, primary, secondary and tertiary forms. Students will explore different methods of object and form creation and manipulation and learn different techniques of sculpting. The course will focus on the understanding of sculptural form through several different subjects each focusing on a different problem. Students will be introduced to the Zbrush workflow and the possibilities of developing or incorporating Zbrush into their art practices. This approach enables students to develop their understanding, knowledge, and skills and improve on a step by step, subject by subject basis. The course will teach students to recognize and interpret the character and flow of shapes through subject matter analysis. Students will explore how to express their interpretations of subject matter and achieve accurate, high fidelity sculpts (relative to their artistic background). Through the course, the students will create several character/creature busts through which they will explore and learn the usage of various tools and sculpting methods. The entire course will be as personalized as possible where the level of the sculpting problem will be suited to the individual student. One of each student's sculptures will be elaborated on creating a high-fidelity sculpt which will show to demonstrate the student's abilities.

Serious Sam
Award-winning game developed in Croatia by Croteam

INNOVATIVE CROATIA

ADDITIONAL
FREE WORKSHOPS

Financing early stage startups
How startup funding and investing works

Early stage startups often risk falling into the funding gap. Learn to understand and prepare yourself for if and when the time comes for pitching your project to funders (friends&family, venture capital, business angels, crowdfunding, banks, public funds, cofounders, employees) and have much better chance of success in securing the funding of your startup.

Croatian Language and Culture

The international course of Croatian language and culture will develop your speaking, reading and writing skills in Croatian and will offer an excellent insight into relevant factors of the Croatian cultural identity.

Inventor of MECHANICAL
PENCIL AND FOUNTAIN PEN

Slavoljub Penkala
(1871 – 1922)

INNOVATIVE
CROATIA

QUICK FACTS
APPLICATION

APPLICATION

The Summer School application process is carried out online. Applications are reviewed on a rolling basis, once you submit your application the admissions team will contact you to schedule an online interview. Applications must be submitted before April 30, 2018. Places are limited, so make sure to apply on time.

LANGUAGE OF DELIVERY
English.

The Summer School Program is intended for students with at least a pre-intermediate level of English and is not suitable for beginners or students with elementary level of English.

STUDENTS PROFILE

Highly enthusiastic and motivated students interested in the field of technology, applied science, social sciences, and humanities as well as students who aspire to personal growth and effective start of their career.

APPLY FOR SCHOLARSHIP

Check out the scholarship opportunities:

www.summer.algebra.university

TUITION FEES

	One course	Additional course
Full Tuition Fee	1500 €	600 €
Early bird Tuition Fee*	1275 €	500 €

*for the students enrolling before February 28 2018

THE TUITION FEE ALSO INCLUDES:

ADDITIONAL WORKSHOPS
(Financing early stage startups, Croatian language and culture)

CULTURAL VISITS:
Memorial Nikola Tesla, Smiljan; National park Plitvice Lakes; quirky museums

SOCIAL PROGRAM:
Zagreb & Šibenik day trips and historical sightseeing

STUDENTS WILL BE AWARDED 6 ECTS/3 US CREDITS PER COURSE.
- **Ask for information about special prices for groups and partner universities.**
- **You can take additional course from the list, but be aware of a possible time consumption. If you are eager to learn more you can benefit up to 12 ECTS/6 US credits.**

DATES
July 8 – 27, 2018

ACCOMMODATION
RECOMMENDED PRICE = 400 €

Accommodation is NOT INCLUDED in the tuition fee. The price for accommodation during a three-week Summer School course is approximately 400 EUR if you stay at **Chillout Hostel** in Zagreb and **Hostel Splendido in Šibenik**. All spaces facilitate the student life to the fullest and allow students to live a unique experience. **Both hostels are modern & urban designed, located in the heart of Zagreb and Šibenik.**

If you do not wish to stay in the hostel, you can alternatively look for private accommodation on your own. The University College will be happy to assist you in the process of finding a flat by providing helpful links to various rental agencies that offer short term apartment rental.

Although prices of private accommodation in Zagreb may vary depending on the city area, the size and amenities that apartments include, University College would be happy to assist you in finding your accommodation.

We recommend you book your accommodation before April 30th.

chillout
hostel zagreb downtown

HOSTEL **SPLENDIDO**, ŠIBENIK

CROATIA
YOUR LIVE AND LEARN SUMMER DESTINATION

Croatia is considered one of the safest countries in the world according to The Global Peace Index 2017 produced by Institute for Economics and Peace (IEP), ranked 31 among 163 countries.

Croatia is one of the sunniest spots in Europe. You should expect 13 hours of sunshine a day in July. More than 10 million people choose Croatia for their holidays. Croatia is the home of the tie, automatic pencil, parachute and other inventions which have transformed human existence, several of which are used in everyday life.... Croatia is also the birthplace of Marko Polo, Nikola Tesla, and many more outstanding individuals.

Croatia - a small country of World's Greatest Technological Innovators

Aside from the beautiful coast and great cultural and historical heritage, Croatia has been recognized for innovation, global reference projects, export of the best business-technological practices, as well as great professionals recognized for their skills and expertise all over the world.

Nikola Tesla (1856 – 1943)
THE MAN WHO INVENTED THE FUTURE
Inventor, electrical engineer, mechanical engineer, physicist and futurist best known for his contributions to the design of the modern alternating current (AC) electricity supply system andalternating current motor.

INNOVATIVE CROATIA

Bol, Brač

Plitvice lakes

Kornati

Rovinj

City of Zagreb

Zagreb, one of the oldest European cities, is not only administrative but also the economic, diplomatic and cultural capital of Croatia, with a population of almost one million.

It is also a university center with forty higher education schools and over 40,000 students, a city that is proud of its long history of education: the first secular city school was built in the middle of the 14th century, the first secondary school was founded at the beginning of the 16th century and in the second half of the 16th century, Zagreb had its first university.

Zagreb is a city of science and culture. The city has approximately fifty museums and galleries, as well as private art collections and about twenty theatres and music venues. Many open-air events and exhibitions are organized from spring to autumn. While walking down the streets of Zagreb, you can admire the architecture, which mostly dates back to the Austro-Hungarian Empire.

Even though Zagreb is a Central European city, in many ways, it has a Mediterranean way of life.
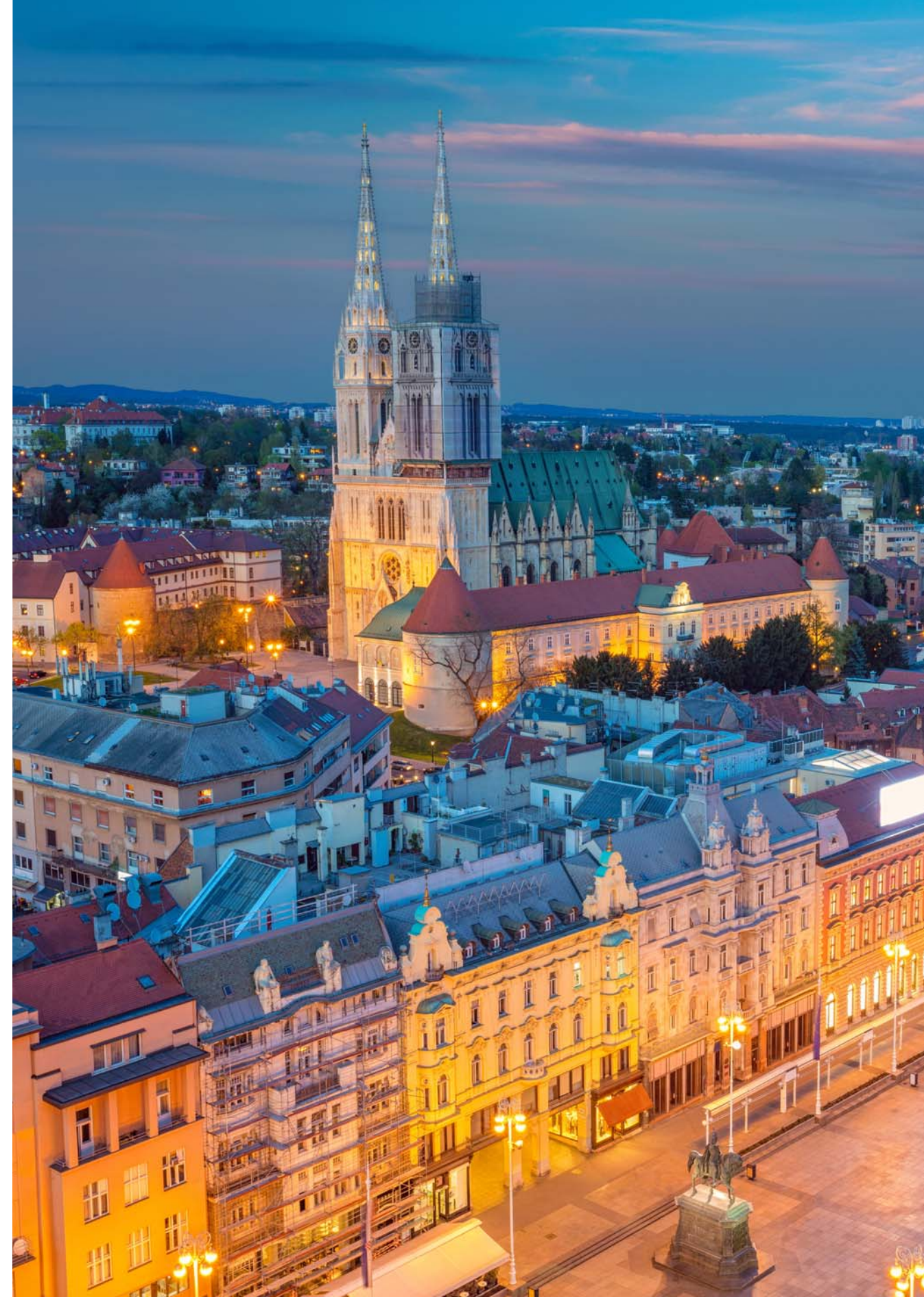
Great atmosphere and friendly local people are the biggest values of Zagreb.

Summer at the Stross 2018 – Strossmartre

Strossmartre or "Ljeto na Strossu" lasts from May untill September. It all takes place in the open, on a beautiful walkway popularly called Stross.

Daytime is reserved to enjoy the works and crafts of local artists. The bar opens late in the afternoon and live music spices up the evenings.

Romantic ambient of the upper town Zagreb intensified by a glass of wine is what has made this "all-summer-event" the most popular getaway from the daily routine. It's a sure way to forget you're in a busy capital and a great chance to meet locals.

City of Šibenik

Šibenik is a city on the Adriatic coast in the picturesque and indented bay where the Krka river one of the most beautiful karst rivers in Croatia enters the sea. It is also known as a gateway to the Kornati Islands. The 15th-century stone Cathedral of St. James is decorated with 71 sculpted faces, and it has been on the UNESCO World Heritage List since 2000. Nearby, the Šibenik City Museum, in the 14th-century Prince's Palace, has exhibits ranging from prehistory to the present. The white stone St. Michael's Fortress has an open-air theater, with views of Šibenik Bay and neighboring islands. Šibenik is a city of great history full of modern attractions. Impressing charm of the old town takes your breath away. While the oldest monuments date back to the 11th century, the city development reached its peak in the late Middle Ages. Today it offers a number of interesting places worth visiting

INTERESTING FACT:

Jaruga Hydroelectric Power Plant, a hydroelectric power plant on river Krka, near Šibenik was the first alternating current (AC) power system in Croatia, the first commercial hydropower plant in Europe, and second in the world. It was set in operation on 28 August 1895 at 20:00, two days after the Adams Power Plant on the Niagara Falls. It was designed to power the street lights in Šibenik, making it the first city in the world with street lights powered by a polyphase system of alternating current (AC).

Have a creative, inspirational and educative summer in Croatia with Algebra!

Banj City Beach

Magnificent view of the old town of Šibenik falls from the city beach that opened only a few years ago. You can play volleyball or refresh in the nearby bar. It is the most beautiful beach in the Adriatic, a cult beach of the Šibenik riviera.

ZAGREB
Algebra Campus

Plitvice Lakes
National Park

Smiljan
Birthplace house
of **Nikola Tesla**

ŠIBENIK

ALGEBRA

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