

# Reasons to Become an Informatics Student



This publication is based upon work from COST Action EUGAIN CA19122 (European Network For Gender Balance in Informatics), supported by COST (European Cooperation in Science and Technology).

EUGAIN features more than 150 members from over 45 countries, including 5 non-European ones. Its main aim is to improve gender balance in Informatics through the creation and strengthening of a truly multi-cultural European network of academics working on the forefront of the efforts in their countries, institutions and research communities. It builds on their knowledge, experiences, struggles, successes, and failures, learning and sharing what has worked and how it could be transferred to other institutions and countries.

COST (European Cooperation in Science and Technology) is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.

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*In order to create materials that can truly speak to a young audience, we have decided to produce a set of social media contents closer to the target audience's consumption habits. Along with two videos shared on YouTube, four short videos were also created and shared on YouTube Shorts and TikTok. The present document is the text-based supplement for this social media project, composed of the transcripts of the videos.*

*"IT jobs are in constant growth. According to the Bureau of Labor Statistics, a 22% increase in demand is projected between 2020 and 2030. This will create more than 400.000 jobs. The variety of positions makes it more accessible for everyone to enter the IT world. Thanks to the wide range of fields that use informatics, such as healthcare, climate, digital communication, and videogames, it is easy to find a meaningful position. For instance, a data analyst collects and analyzes data to make informed decisions. A UI designer delivers an immersive user experience by creating beautiful screens. A software engineer builds, tests and deploys the code. There is also a place for scientific jobs, like researcher and professor, who develop new concepts and tools. In addition, there are numerous advantages of IT, just to mention a few: high compensation, countless benefits, and limitless flexibility. If you are ready for the great future, don't hesitate to step into the IT world! For motivation, we have collected some testimonials from people already in the field."*

### **Professor (Academia), Norway, *Software for a Better Society***

"Hi, I am [...] and I am a professor in computer science. I was introduced to the field of computer science when I was 16 years old by my Mathematics professor who explained us how to program a calculator. I stayed in the field as an action to improve my independence and to do a profession where I could have an impact on world because there were many problems and there are many problems to solve I enjoy very much to work with the young people and to work with those that I believe are the challenges of our society, diversity, environment and in general how to develop solutions that improve the life of the people and the most memorable thing in my career is maybe when we managed to develop a system that was able to exchange many emails each minute at the end of the 80s. It was like magic and it is very memorable when one of my student get a memorable moment and I hope that they work in environments that we are trying to shape at here, at the Department of Computer Science, at the Norwegian University of Science and Technology is an inclusive one, it is an environment that stimulates young people to achieve their dreams but this is not up to me. To say, it is up to them. Next, I am planning to do the bit less to be able to empty my head of all the worries of all the small problems and think about more important problems and try to be a better mentor and the better facilitator for my team"

### **Senior Researcher (Academia), Switzerland, *Computer Science in IT***

"The part I like the most of being in Informatics is the creative side. The fact that you can really look into needs, real needs of different user groups and look at into how technology could support and help them fulfill these needs. The tricky part is when involving the users to understand them and that takes time."

**Assistant Professor (Academia), Hungary, *IT Education***

”According to my qualifications, I am an high school IT teacher but currently I train IT teachers and IT professionals at the university. I believe that everyone should learn at least the basics of programming because it can develop problem-solving strategies and methods that can be used in solving everyday non-IT problems. As a professor I love passing my knowledge to the students, both IT teachers and IT professionals because I believe that they will be useful members of the society.”

**Postdoctoral Fellow (Academia), Norway, *Gender Balance in IT***

”What I love about IT is that I get to work on projects that matter, matter to me and matter to the world. Now there is this idea that I wanted to make a change in the world and because of IT I feel that that is what I’m doing and this is awesome. As a researcher, I get to work in a diverse team. Currently, in my research group, there are people from Italy, from Norway, from the United States, from Bangladesh, from Hungary, so basically from 3 different continents. And that means that I get to be exposed to different cultures, different languages, and different ways of thinking. And basically, we also get to travel a lot, and that means that it never gets boring. It is always something new all the time.”

**PhD Student (Academia), Switzerland, *HCI for Inclusive Education***

”Computer science can help us navigate modern society. As a designer I think that’s especially valuable and there’s an inquisitive person it’s incredibly stimulating and exciting. I believe it’s becoming an important knowledge, domain not only in enough itself, but also in conjunction with other humanistic and scientific fields as in my case.”

**PhD Student (Academia), Italy, *Explainable AI***

”I am [...], I am a PhD student at the National PhD program (in AI) and I have a Master’s degree in Computer engineering. I chose IT because my IT high school teacher, basically, walked me through the IT field and made me love it. The most memorable moment I remember is one night during my master thesis I remember that suddenly waking up with the idea that then I developed and published in a CVPR workshop.”

**PhD Student (Academia), Italy, *AI for society***

”My name is [...] and I am enrolled in the Italian National PhD in Artificial Intelligence for society at University of Pisa. I am graduate in quantitative finance and insurance. Since my graduation, I have worked as business and data analyst for almost five years in different industries. At that time data science was a necessity. I wanted to fill the gap in coding skills. But then, during the master, my professors helped me to find the right PhD program in line with my academic and professional background and also in line with my research interests. They reviewed my application, they gave me feedbacks about my research proposal and also reference letters. I believe that informatics is a field where I can be creative and I can work



on technologies that can improve the quality of life of people.”

**Professor (Academia), Spain, *Artificial Intelligence***

”Hi, I am [...], professor at Universitat Politecnica de Catalunya in Barcelona Spain. I am the leader of the software computing research group that is part of intelligence Data Science and Artificial Intelligence research centre. Our group is composed of 7 researchers that are also colleagues and friends, 5 men and 2 women. What excites me most about my work is doing research in the area of artificial intelligence applied to medicine and the lately to mental health. Working side-by-side with my colleagues from both the IT and also medicine and psychology fields and apply your knowledge to help improve the daily lives of the elderly and people with mental health problems is something incredibly rewarding to me.”

**Professor (Academia), Portugal, *Information Retrieval***

”Hi, I am [...]. I’m a professor at the University of Porto and a researcher at INESC TEC. In my research, I am interested in developing tools that promote information access and help people search more successfully. I knew I liked math and science when choosing what I wanted to study in higher education. Having an aunt working in this field, very passionate about her work, pulled me to choose informatics engineering. I ended up loving informatics. First, it lets you create technology that can potentially improve people’s lives. Second, it is very diverse in terms of activities you can do and in terms of teams. You can be in contact with a client for requirements analysis. You can work on the conceptual design of the application, or you can be involved in user interface development. Third, being consistently applied, informatics lets you connect and learn about new domains such as medical science, humanities, or arts. Fourth, it enables you to build something very straightforwardly. Compared with other types of engineering, it’s much quicker to make something work, giving you a good sense of accomplishment.”

**Professional (Industry), Hungary, *UX Strategist***

”Hi, I am [...] from Budapest and I tend to think of technology as canvas for creativity and innovation to solve issues, big and small ones, like ordering a burger online if you are hungry, by managing money in fintech services, saving lives by using cascade data or just giving fun and memorable virtually experiences. The IT info communication technology in particular is the largest tech in the history of humankind is changing everything around us and not lastly is the pretty upper lifting feeling to being part of. And not to mention, understand the nature of technology standard makes the future less scary for me. Without any question, technology has some dark bad sides also to cope with, however, I firmly believe that only technology can save us from total destruction in the long run. IT is huge and growing in a very fast pace for very diverse, relatively happy opportunities to work. I’ll have to say every company is a IT company or something nowadays as all we go through digital transformations, even the flower shop at the corner which is using e-commerce home delivery and digital invoicing so you can join enterprises, tiny shiny startups or local SMEs, as you wish. You can go to research, design, engineering, digital marketing, people management and so on and so forth. Based

on your soft and hard skills, interest, professional treats, future plans. So, do not miss to join the wave, believe me, you won't regret it."

**Professional Researcher (Industry), United Kingdom, *Inclusive Digital Learning***

"The reason why I chose IT is because I love computers and technology. I have been immersed and exposed technology since I was a very young child and I believe that it is a very powerful tool that can be used to create user-friendly and inclusive experiences for many stakeholders and users. Specifically I'm working at Sponge UK. It is company based in United Kingdom where we try to create bespoke solutions for a series of customers and clients and our main objective is to reach as many customers and users as possible and to make sure that our products are inclusive user-friendly and efficient."

**BSc Student (Academia), Ukraine, *Cybersecurity***

"I am [...] and I studied at the National University of Radioelectronics in Ukraine and I will get a bachelor degree in June. Why did I choose an IT sphere? My teacher had showed me my hidden potential in IT and after that we have started a science project about 3D modelling in blender and creating application in Lazarus environment. He was really decisive around in my choosing career of IT. What do I enjoy the most? I think being a student because I have plenty of opportunities and especially I do love working in team on different projects and also I can be quite creative and uncommon. The most memorable thing that happened to me on a field, just speak from my mind, I remember working on my project with supervisor. This is florify idea, this inspiration and at the end of the scientific work we were so proud and determined. I think that this emotional part of activity makes me happy. What about working environments? Frankly speaking, a lot of depends on the destination and the mood of team. At the same time, we can work together sharing ideas etc. and we also can hold different backgrounds. Nowadays, this balance is extremely important. What I'm planning next? The main thing for me is to enter in the master degree programme and to continue working on scientific projects and after that, I want to work as a graphic or 3D designer."

**Engineering Director (Industry), Switzerland, *IT Engineering***

"My name is [...]. I work as an engineering director and I'm in IT since 2005. I really enjoy working in IT because you can really solve complex problems and you can have and discover a lot of big challenges that you can address and you have all the tools and all the the brain power to do so. So working in IT is really special in a sense because you can really reach to any part of the world. With all the connections, you can really work in remote teams. You can really get social if you want it to be, and you have really all variety of tools to enable you to work and be as efficient as possible. So IT is a really colorful world and really nice place to work in with its challenges, of course. But I definitely would encourage anybody who is considering joining this industry sector to join and get experience, get to know the tools, get to know the people and really make sure that the industry's getting stronger and stronger with every contributor."

**PhD Student Professional (Industry Academia), Poland, *AI in economics***

"The reason why I started the career in IT can be described in one sentence: just find a job that you love and you will never have to work a day in your life. In such a dynamic environment you need to be up-to-date and this is what is really driving your personal development. Every single day, I get to learn something new. Developing new ways to solve the challenge is also very rewarding: it makes us aware there is no one way to do something and we should always try to find the most effective solution. For me the most interesting fact about computer science is that there is still so much to be discovered and this is what is driving me every single day."

**Associate Professor (Academia), Serbia, *Computer Science in IT***

"Hello, my name is [...]. I work as professor at computer science department at University of Belgrade. I love computer science as it is creative like art but it's much simpler to accomplish your visions. You can imagine whatever you want to do and the computer is the only tool you really need. You can choose to work on a project that can make people's lives better. Another thing that I love about my job is that I have a chance to teach and to transfer my knowledge to young people. This positive energy that exists between me and my students is something that keeps me going."

**PhD Student (Academia), Norway, *Interaction Design***

"Hi you could say that my path in exploring computer interaction design started a little bit late because I'm right now I'm beginning my PhD in computer science here in Trondheim but despite having a background in interior interaction and communication design I've always been intrigued of approaching a problem, a concept, a phenomena from the technological point of view. In fact I've always been curious about the idea of explore possible deployment, implementation and also about the fact that these things can have on user interaction. In fact I would like to develop powerful interaction paradigms in order to enhance usability for what concern different kinds of technology and in particular the ones in the learning field"

**PhD Student (Academia), Norway, *Health Informatics***

"Every child who is born will bring an opportunity for all of the human beings" this sentence was my entry point in order to go health informatics I did my master thesis in in one of the biggest Pediatrics hospital in the Middle East in Tehran after that I came Norway for improving care pathway for multiple patients or patients who have several diseases together uh based on many statistic we see the prato rules principle in multiple patients for example we can see these patients is only 20% of interior hospital but they consume more than 80% of resource of hospital so I came to Norway for working in this project so always health care is interesting for me and I think NTNU is a uh good university for research and other things.I work in health informatics and mainly I focus in subject that calls process mining process mining is we can called subdiscipline from data mining that our goal is finding workflow activity from data so for example care pathway of patients in the hospital can be a process so we find our goal in this project to find this process



to improve it and how can we contribute in this care path phase and the overall goal of project is how can we bring a better treatment for this patients, multiple patients or patient with several diseases together”

**Master Student (Academia), Norway, *Data Technology***

”Have you ever wondered if an app could increase diversity and inclusion? we are currently working in a master’s thesis about intersectionality in computer science we are going to be developing a mentorship program that will help increase inclusion for everyone in computer science. During our thesis we will get to do interviews, user’s test and also design and develop an app. For our thiesis, we will utilize both our theoretical and practical skills while have been solved the sustainable Development Goals and also promotes software for a better society ”

**Professor (Academia), Switzerland, *Data Science in Economics***

”During my bachelor the professor of informatics dedicated a lot of time to answer my curious questions and was challenging me to code small ‘hallo world’ type of examples. Note: my bachelor was in economics so informatics was a single exam I had to take. So a mix of curiosity on my side and availability on the professor side My curiosity has always been encouraged and motivated by my parents. ”

**PhD Student (Academia), Switzerland, *Informatics***

”My main motivation to start a career in informatics was my mom, she always believed that this will be the future. She worked as a banker and saw how her job is strongly depending on informatics. What motivate me in daily basis is the idea of contributing in a high competitive community as a woman. I’m coming from Morocco, a country where girls get married soon ( around 22, 23 for educated girls and very early around 17, 18 for non educated girls) and doing a PhD in informatics is a pride for all those around me. ”

**PhD Student (Academia), Switzerland, *Software Engineering***

”I want to contribute to the project, but I never heard before joining USI that Informatics is only for boys. Neither I felt any discrimination during my bachelor’s and master’s studies in Bolzano-Bozen, (South Tyrol, Italy). I only started to hear this kind of talks at USI. But I never felt anything in my research group, our institute, and in the whole USI in general. Maybe this sentence, expressing my thoughts could be beneficial: If there is any discrimination, we should be strong and stand for each other, and always do everything possible to stop it. And it does not matter which gender or sexual orientation the person has. Any kind of discrimination is wrong per se, and we should show the world that this way of thinking is mistaken and that all humans are equal and everybody deserves the same treatment. When I was a child, I saw movies with hackers and always wanted to become one. Since I also liked mathematics at school but did not want to study pure mathematics, I have chosen to study Informatics. After I finished my bachelor’s studies, I realized that I probably would never become a good hacker and already got very interested in Software Engineering. Hence, I decided to do the master’s in Software Engineer-

ing, and later the Ph.D. ”

**Master Student (Academia), Switzerland, *Informatics***

”For me, it was the same thing that both hindered and helped me: I was a bit discouraged by the way I was looked at by my classmates in my bachelor’s courses - as if I couldn’t possibly do well in an informatics course. Whenever I helped them with something I was double and triple checked and then they acted surprised when they figured out I was right. But at the same time, I also got encouraged by this in a way - because I knew I was capable and so proving them wrong was an added challenge/satisfaction.”

**Master Student (Academia), Switzerland, *Informatics***

”Encouraged: What? Apart from being curious to learn about Informatics (such as from popular documentaries such as “Alpha Go”) a strategic reason was the demand for Informatics personnel, hence, future job and financial security (after studying a B.A. Communications, which of course is not as financially secure). Who? My father (working in Informatics) Discouraged: What? Being intimidate by mathematics (not my strong suit). Who? No one, everyone was supportive thankfully. Hope this is helpful and best luck to you for the project. May many women be encouraged to study Informatics as well, if they are discouraged by any possible gender bias. ”

**Postdoctoral Fellow (Academia), Switzerland, *Computer Science Engineering***

”When I told my parents that I wanted to study Computer Science Engineering as my MSc, my father was really happy. Being a professor of Informatics himself, he told me that he couldn’t help supporting my decision with great enthusiasm”. “When I told my parents that I wanted to study Computer Science Engineering as my MSc, my mother was surprised. “But, Informatics has been the exam where you got your lowest grade in your BSc, are you sure?” she asked me. But I was sure, and she soon realized that it was a great idea”.”

**Bachelor Student (Academia), Switzerland, *Informatics***

”Here is my experience: - who/what encouraged me: I was mostly interested in it because of the various job opportunities I could get in the future, because everybody said to me that informatics is everywhere nowadays. - who/what discouraged me: In high school I was in a class of 15 girls with non-scientific orientation. When I told them I was going to study informatics, they were very surprised. They told me that informatics is too difficult and that they wouldn’t ever understand anything about it. They didn’t mention anything about gender.”

**Bachelor Student (Academia), Switzerland, *Informatics***

”I believe girls/women are discouraged from studying Informatics at a very early age. When I was in elementary school, our teachers told the guys to help the girls with computers (apparently, girls could not understand computers). Knowing that technology was ””only meant for boys”” discouraged me in the beginning. In high

school, the problem continued because girls tended to choose arts or languages, while on the other side, guys preferred mathematics or informatics courses. What encouraged me to choose informatics was my fascination for computers/technology from a young age. Even after knowing that informatics was a degree "for men" (because there are few women that study Informatics), I decided to do what interests me. Knowing of a preexisting stereotype should not be a reason not to pursue an interest or dream."

**PhD Student (Academia), Switzerland, *Mathematics in IT***

"I didn't study Informatics but Mathematics so I don't know if this will be of help for you, maybe just see for yourself. One of my main motivations for studying maths was that I thought and still think that Mathematics is behind almost everything if you just dig deep enough. So if you want to understand the world this is what you have to know about. I think my biggest fear was that I wouldn't be "good" or "smart" enough to actually make it through to a degree. So I was considering studying something else right from the beginning to not have to go through potentially failing"

**Bachelor Student (Academia), Switzerland, *Informatics***

"I will start off with the person who inspired and encouraged me to pursue this degree, who was my boyfriend. I was really doubtful because of all the stereotypes and judgmental thoughts/critics women in informatics receive, and thus I was not really sure whether to pursue this career or find something else that might "fit" me better. My boyfriend gave me a big push and told me not to worry and there is no such thing as "men are better in informatics than women" ; that this was a big lie and as long as I would try hard I would succeed. He believed in me and then day by day I started believing in me even more. As for the person who discouraged me, there was this family friend who came by one day around my university application date and during the conversation the topic of my future career was brought up. This person told me that I could not succeed in this field as a woman and that the only way I could succeed in this field was not an honest way (that sentence led to imply a lot of things I did not and do not want to think about). However I found the strength to do what I want and pursue this dream of mine and here I am today sharing my experience."

**PhD Student (Academia), Switzerland, *Informatics***

"Who/what encouraged: This might be peculiar, but I was really encouraged by the fact that it was uncommon at the time to be a girl in informatics. It was challenging, frightening, but at the same time motivating and interesting. Who/what discouraged: I was discouraged by the lack of role models of women in informatics in my society and by the field's stereotypes, which often raised the fear of not belonging"

**Professor (Academia), Switzerland, *Informatics and Numerical Methods***

"In my case nobody encouraged me or discouraged me. At the time I had done

math (there was no Informatics yet at the University) and Informatics was the new thing to do, so cool. I had taken a class in Numerical Analysis and I had liked to actually see something be done, a (Fortran) program that ran!”

**Link to EUGAIN YouTube Channel:**

[EUGAIN - YouTube](#)

**Link to 3-minute YouTube videos:**

[”Why Choose IT? - EUGAIN Young Researchers”](#)

[Why choose IT as a field - Inspired by EUGAIN - YouTube](#)

**Link to the YouTube Library:**

[Short Videos Playlist](#)

**Link/Account of EUGAIN on TikTok:**

[EUGAIN - TikTok](#)

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