

## Developing vital skills for success in tomorrow's world



An interview with  
**Marta Gehring, co-founder  
 & CEO at TechSpark Academy**  
[www.techsparkacademy.ch](http://www.techsparkacademy.ch) |

Steve Jobs once said "everybody should learn to program a computer, because it teaches you how to think." The co-founder of Apple famously pioneered innovation in the technology space and subsequently transformed our day-to-day lives through inventions such as the iMac, iPad and iPhone.

TechSpark Academy is committed to developing the next generation of key thinkers. It is a leading educational provider allowing students aged between eight and 18 years old to gain critical insights into the digital world. The Swiss-based company has partnered with more than a dozen premium private schools in major cities – including Zurich, Zug, Luzern, Lausanne, Geneva, and in Zuoz (near St Moritz) – to offer summer camps and after school coding clubs across the country. We spoke to Marta Gehring, co-founder and CEO at TechSpark, to find out more.

### What are the essential components of computer language?

A computer language, as the name says, is a "language" similar to human languages. Human language is used to get information from one person to another; computer language is used to send information from a person to a computer.

In both, there are customs and conventions about how instructions are passed along and about how things are done. In human languages you have grammar rules to be respected, dictionaries to be routinely updated. In computer languages you have syntax rules and new releases to add novel features and fix bugs.

There are basic programming elements, or operations: input (sending commands or data to the computer), output (getting data or results from the computer, arithmetic (performing calculations), conditional (testing to see if a condition is true or false) and looping (cycling through a set of instructions until some condition is met).

### What inspired you to create an academy guiding children towards a digital future?

We wanted to accelerate digital literacy, demystify it and make it accessible to everyone. Not only for the etch enthusiasts, but for all students. Digital literacy is not for computer scientists and engineers alone. And it is not only for boys! This is why we also promote coding for girls in association with our partners, Nextthink. Technology is an increasingly important part of almost every industry and digital literacy a vital skill for success in tomorrow's world.

Our motivation was therefore to provide a pallet of courses in which there is something for everyone. Our curriculum is not only addressed to the digitally minded, but to all eight to 18-year-olds who want to discover the technologies that power today's digitally connected world in a fun, interactive, and hands-on manner. We keep to a 1:5 instructor-to-student ratio, so that every participant gets personal attention.

### How important is it to have an understanding of the developing digital landscape?

There are many computer languages today (more than 800), but a handful dominate (Java, Java Script, Python, C#). Indeed Python (developed by a Dutch engineer while working for Google) and Java are now the top two. This is why it is said that Python is the new English, and that learning Python confers literacy in the digital age. We agree!

Not knowing how computer code works is no longer wise in this digital day and age. You may want to become a computer scientist, data scientist or engineer, or you may not. Still. One should know something about computer science. I encourage all young people to dip their toes into coding and get a flavour of what it's all about. There is something for every level of interest – from hacking & cybersecurity to digital design. I am sure they will like it – it is our world today! Coding is no longer the skills of tomorrow – it's already here and it's revolutionising our world.



### What courses and workshops do you offer?

Our best-selling courses include the computer language Python, used by Google's search engine, Instagram, YouTube and many AI applications, and Swift, developed by Apple to encourage young coders.

TechSpark Academy is also among the first in Europe to teach cybersecurity, with our best-selling 'Hacker mode' course. Additionally, we teach digital storytelling with our 'Digital photography and Film' course, and introductory engineering with robotics for various ages, from the very young ones (six to nine years old) to more complex robotics for 17-18-year olds.

In summary, we teach programming (coding), AI, cybersecurity, digital storytelling with digital photography and film, and robotics at various levels.

### What support does TechSpark Academy offer to its students post-completion?

We offer a stepwise curriculum, allowing students to evolve with us and grow over time. The more motivated students can participate in competitions such as the Swiss Informatics Olympiads (SOI) or Hackathons, such as our

annual 'Hack @ Google Weekend' hosted at Google's European R&D Headquarters in Zurich.

All students get personalised feedback forms to reflect on their learning and certificates of completion to track their progress over time.

### How have your past students utilised their experience with TechSpark Academy to benefit their own progression? Can you share some of the Academy's recent success stories and achievements?

TechSpark Academy prepares its students for University, whatever degree they end up choosing. Here are some examples:

- Frederick developed an interest in programming after attending a series of TechSpark Academy course and is now participating in the Swiss Informatics Olympiads (SOI).
- Leo took courses with us and is now attending the Swiss Institute of Technology in Zurich (ETHZ) one of the top Public universities in the world, ranked sixth in QS Global World Rankings 2021.
- Lynn took three courses with us and is

now studying economics at Bocconi University (first in economics and econometrics outside the U.S. and the U.K. in QS World Ranking), where she is continuing with her Python.

- Cameron volunteered as our support instructor for the junior classes and was inspired to study informatics at USI, the University of Italian speaking Switzerland in Lugano.
- Samantha took an advanced Python course with TechSpark Academy before co-founding an association dedicated to closing the gender gap in the tech industry and encouraging more girls to give programming a chance.

### What is the best piece of advice you provide for budding tech specialists?

Love what you do. Explore. Practice. Don't be afraid to make mistakes and try new things. Practice, perseverance and preparation will get you to great places. For budding specialists in other areas, have no fear; dip your feet in the tech-sphere and get to know computer language. You will be grateful for it throughout your digital life. And yes, you will like it!