



## A WORLD CLASS CURRICULUM TO EMPOWER THE NEXT GENERATION OF TECH TALENT

Making a difference in computer science education allowing our graduate engineers to stay relevant even 20 years from now.



# TABLE OF CONTENTS

---

03

---

CODAM  
STUDENTS

04

---

YEAR-ROUND  
RECRUITING

05

---

EDUCATION  
MODEL

07

---

42NETWORK  
STATISTICS

08

---

CODAM  
STATISTICS

09

---

CURRICULUM  
CODAM CORE

10

---

CURRICULUM  
CODAM ADVANCED

11

---

BECOME A HIRING  
PARTNER

14

---

GET IN TOUCH





# WHY CODAM STUDENTS?



## PROBLEM SOLVERS

Our students come up with own solutions by identifying, acquiring, and applying the relevant knowledge without any guidance.



## READY-TO-WORK

Our students require less on-boarding time and can deliver value faster thanks to our hands-on learning methods.



## LEARN-TO-LEARN

Our students are used to learning new programming languages on their own. No teachers. No lectures.



## PLUGGED INTO THE LATEST TRENDS

Our students keep themselves up to date with the latest industry trends through our regular talks, masterclasses, coding games, hackathons.



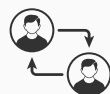
## PROJECT OWNERS

Our students are capable of creating their own fully functioning programs; they are responsible for and must defend the solution they come up with.



## HIGH AUTONOMY

Our students are self-starting, self-motivating, and trained to learn and deliver by their own means.



## PEER-TO-PEER

Our students are team-players. They collaborate continuously with their peers on their projects and evaluate each other's work to strict standards.



## FUTURE DIVERSE TALENT

Our students are accustomed to working in a diverse environment of various ages and backgrounds, much like the workplace. No two students are the same.





# YEAR-ROUND RECRUITING

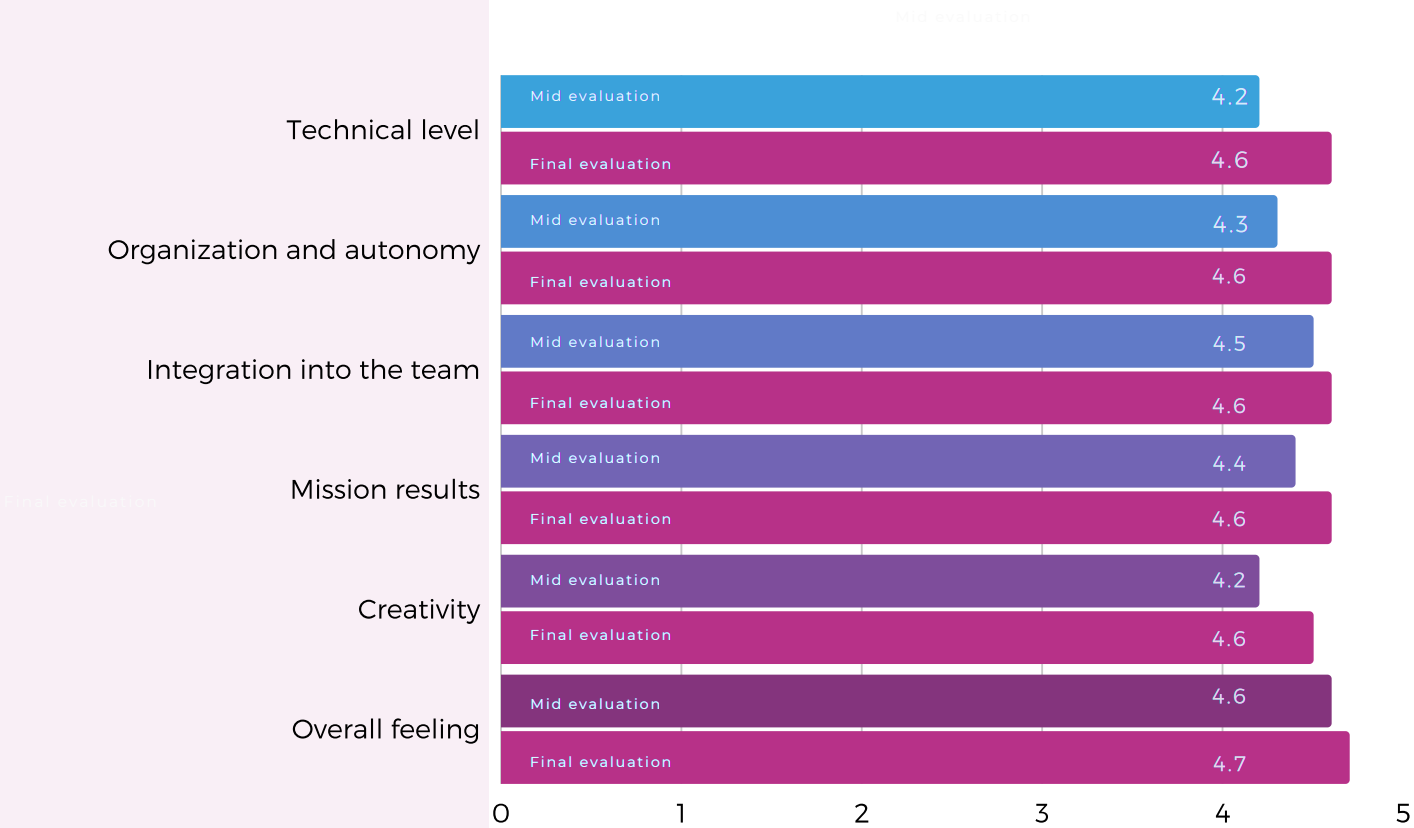
Since we don't have classes or courses, we don't follow an academic calendar. Our students are ready for internships and employment on an ongoing, year-round basis.

Recruit according to your business needs instead of waiting for the traditional summer or fall intern.



## HOW COMPANIES HAVE RATED THE CODAM STUDENTS' PERFORMANCE DURING THEIR INTERNSHIP

As of January 2021 based on mid & final evaluations given by company supervisors





# ABOUT CODAM

Codam Coding College is the only peer-to-peer coding institution in the Netherlands training students to become qualified software engineers and design inclusive solutions for the challenges of today and tomorrow.

At Codam, students build technical expertise and grow adaptability, autonomy, and empathy, in close collaboration with private and public partners.

## EDUCATION MODEL

**ZERO** TEACHERS

**ZERO** LECTURES

**ZERO** TUITION

**100%** CODING

## 42 NETWORK

### PART OF THE 42 NETWORK

Codam's educational model has been taken from the 42 university in Paris, France, and it has been brought to the Netherlands in September 2018 by Corinne Vigreux, founder of TomTom.

Currently, 42Network is uniting 33 campuses in 21 countries worldwide sharing the same curriculum and education model.



## RIGOROUS SELECTION

- Month-long selection process where applicants must come to school and face coding challenges every day for 4 weeks.
- Selection criteria are not limited to coding ability but encompass willingness to learn, help others and perceived potential for growth.
- ~ 35% selection rate.



## PROJECT BASED

- Students discover and learn different programming topics by solving projects.
- Projects are real use cases ~ 100 projects.



## PEER LEARNING

- Students collaborate on team projects and work in a coworking space sharing knowledge and contributing to each other's success.
- There are no books or teachers. They learn how to learn by searching for solutions themselves and helping each other.



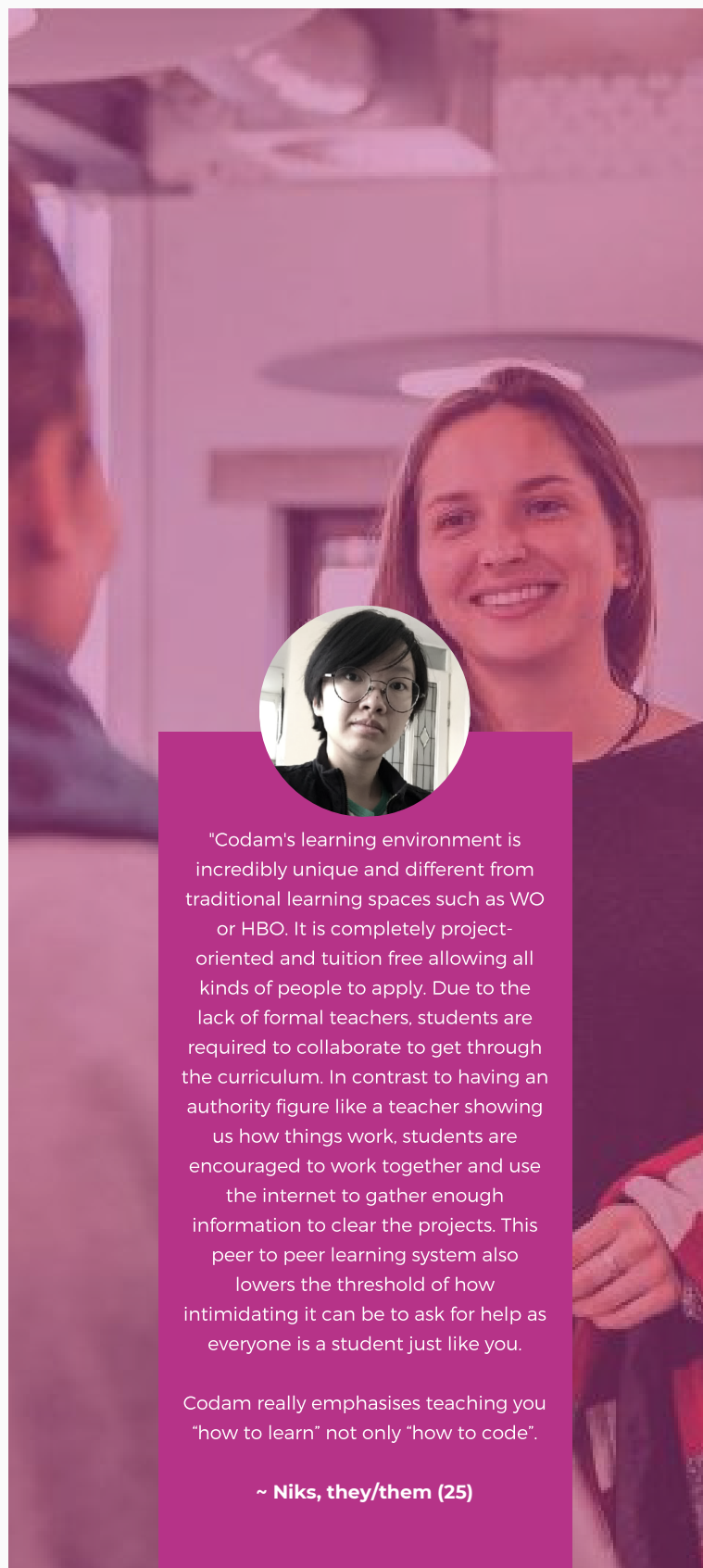
## PEER EVALUATION

- Students grade each other based on a grading system inspired by academic peer review.
- All projects must be validated by a minimum of 3 different peer evaluators which are selected at random by our internal API.



## GAMIFICATION

- Curriculum is heavily gamified. You gain experience by validating projects and can unlock custom achievements.
- Students strive to achieve the maximum level of 21.



"Codam's learning environment is incredibly unique and different from traditional learning spaces such as WO or HBO. It is completely project-oriented and tuition free allowing all kinds of people to apply. Due to the lack of formal teachers, students are required to collaborate to get through the curriculum. In contrast to having an authority figure like a teacher showing us how things work, students are encouraged to work together and use the internet to gather enough information to clear the projects. This peer to peer learning system also lowers the threshold of how intimidating it can be to ask for help as everyone is a student just like you.

Codam really emphasises teaching you "how to learn" not only "how to code".

~ Niks, they/them (25)



# 42 NETWORK STATISTICS

As of January 2021



started in **2013**  
in Paris, France



**10.000 +**  
students enrolled  
worldwide.



**33 CAMPUSES**  
in 21 countries.



**50%**

of our students manage to complete the first stage of the curriculum. The curriculum is not just any course, it's a real challenge with high technical standards.



**100%**

of our students who complete the first stage of the curriculum successfully find an internship.



**50%**

of our students who go on internship decide to pursue their careers & work full-time within the same company.

**3953**

internships finished.

**1303**

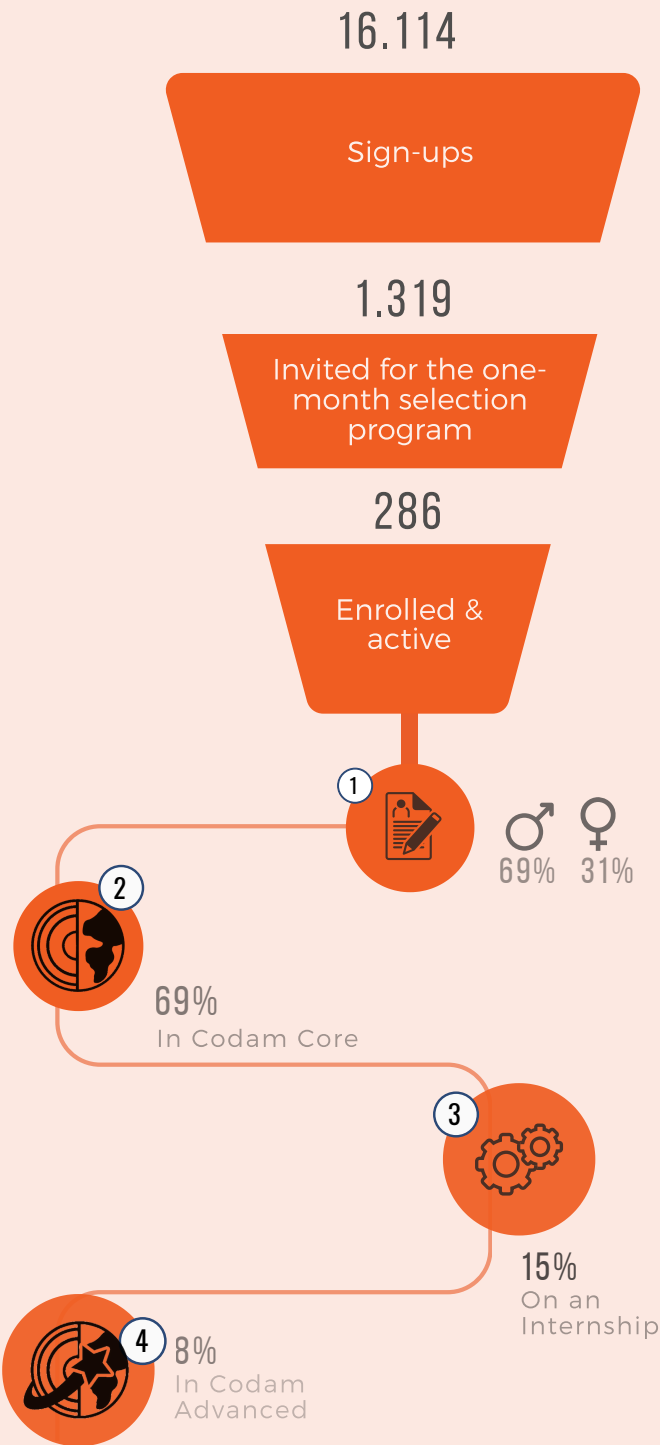
internships ongoing.

**5132**

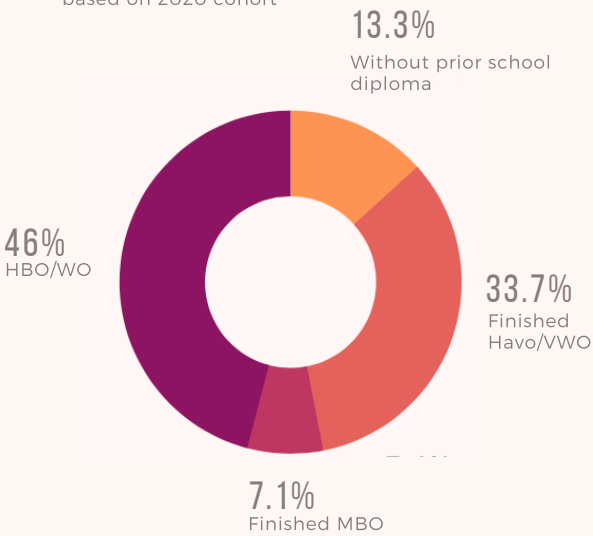
companies are hiring partners.

# CODAM STATISTICS

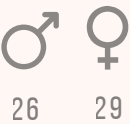
## CURRENT STATUS OF CODAM STUDENTS In January 2021



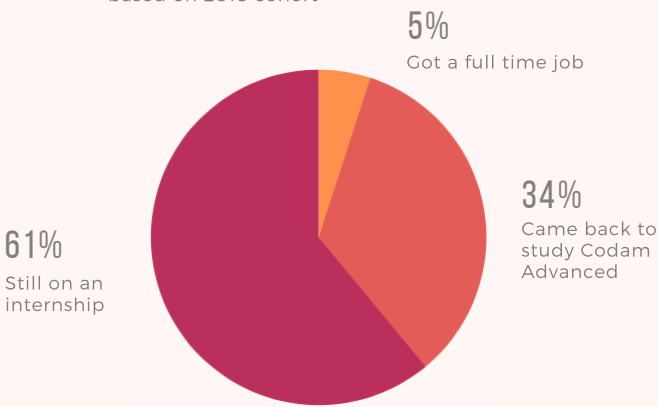
## EDUCATIONAL BACKGROUND STUDENTS based on 2020 cohort



## THE AVERAGE AGE OF A STUDENT IS 27 In January 2021



## STUDENTS ON INTERNSHIP based on 2018 cohort





# CURRICULUM



## CODAM CORE

**On par with a Bachelor education**

**Duration: up to 1.5 years plus 4-6 months mandatory internship**

Focuses on the fundamentals of programming, and consists of 17 projects, 5 exams and a full-time internship of 4 to 6 months.

### FUNDAMENTALS OF PROGRAMMING

- Imperative programming in C in a UNIX environment,
- Object-oriented programming with C++,
- Fundamental data structures and algorithms,
- Graphics (raycasting, raytracing, transformation matrices),
- Network and system administration (Git, Docker, Kubernetes),
- Concurrent programming (processes and threads),
- Network programming.

### ART OF LEARNING TO LEARN

- Analysing problems beyond current technical level,
- Identify missing information and knowledge,
- Search for relevant knowledge via diverse sources,
- Check accuracy of that knowledge,
- Practice to implement knowledge efficiently.

### SELF DISCIPLINE AND PROFESSIONALISATION

- Self organization & autonomy,
- Effective communication,
- Collaboration & managing group projects,
- Building a professional network and relevant soft skills.



"From writing my own C library to creating a walkable 3D maze - all from absolute scratch - Codam's core curriculum helped me develop my skills and confidence in a wide range of fields such as graphics, web, and object-oriented programming. I appreciate the curriculum's focus on developing our ability to learn and adapt, rather than on specific languages.

Codam trains developers that can adapt to and evolve with the ever-changing industry with confidence and curiosity."

- Michelle (29)








# CURRICULUM

 **CODAM ADVANCED**

On par with a Master education  
Duration: up to 3 years plus 6 months mandatory internship.

Focuses on providing a high expertise level, and consists of 93 projects divided into 5 tracks. To complete their curriculum, students are expected to validate a Major stage within one track, a Minor in another one, plus a full-time internship of 6 months at the end.

	INTRO	MINOR	MAJOR
<div> <b>WEB &amp; MOBILE DEVELOPMENT</b></div>	HTTP / HTTPS protocols, HTML / CSS, PostgreSQL, Nginx, Python Django, intro web security.	IOS development with Swift, Android development with Java / Kotlin, strengthening web programming.	Cross platform mobile apps, full-stack JavaScript, functional JavaScript, video streaming.
	INTRO	MINOR	MAJOR
<div> <b>GRAPHICS &amp; VIDEO GAMES</b></div>	Graphics fundamentals, 2D graphics, 3D graphics (Raycasting, Raytracing, intro OpenGL, models & textures)	C++, OpenGL, Unity Game Engine	Encryption, reverse engineering, binaries exploitation, network, malicious code
	INTRO	MINOR	MAJOR
<div> <b>SECURITY</b></div>	Unix, developer oriented security, executable formats, process debugging, introduction to Encryption	Encryption, reverse engineering, binaries exploitation, network, web security.	Encryption, reverse engineering, binaries exploitation, network, malicious code
	INTRO	MINOR	MAJOR
<div> <b>AI</b></div>	Functional programming, applied maths, algorithms, graphs, path finding	Applied maths, Automatas, games and puzzles solvers, efficiency & complexity	Complex solvers, regressions, neural networks, Machine Learning
	INTRO	MINOR	MAJOR
<div> <b>OPERATING SYSTEMS</b></div>	User land Unix, process lifecycle, interprocess communication, memory model, inputs and outputs.	Linux from scratch, Kernel modules, Interrupts, System Calls, Binary Format, Scheduler, introduction to Kernel From Scratch	Kernel from scratch (Memory, Processes, interruptions, File Systems, System calls, ELF support)



BECOME A HIRING PARTNER

Codam is designed to educate the best people into the digital industry. As an employer, you want to have confidence in who you're recruiting and what your talent pipeline looks like based on your needs. As one of the most efficient and demanding software engineering education programs in the country, companies prefer recruiting students from Codam.

Becoming a hiring partner gives your business access to highly trained candidates with zero cost involved in the recruitment process. We can also help in understanding the needs of your company and matching you with the ideal candidate.

Codam's internship requirements

- Between 4-6 months;
- An internship compensation of at least 550€ per month;
- There needs to be a technical supervisor which will work closely with the intern on a daily basis.

INTERNSHIP I

After Codam Core  
Mandatory;  
Full-time;  
4 to 6 month assignment;

Opportunity for students to apply their programming knowledge in the context of a company.

PART-TIME JOB

During Codam Advanced  
Optional;  
2-3 days a week commitment;

Opportunity for students to develop further their professional experience and discover new opportunities while continuing their studies.

INTERNSHIP II

After Codam Advanced  
Mandatory;  
Full-time;  
6 month assignment;

Opportunity for students to make a bridge between their education and career.

PREVIOUS INTERNSHIP ASSIGNMENTS



"At Salto, I worked on a file system encryption updates which got implemented as a solution for their subsequent release. I also worked on various proof of concepts which were inserted in the company roadmap and will be hitting releases in the next 12-16 months!"

~Marijn (28) @ Salto KS



"At TomTom, I got the opportunity to use what I learnt about ML and Neural Networks to create a Convolutional Neural Network working model using binary cross-entropy and Adam to compare images with each other."

~ Flint (25) @ TomTom



"At Liquid Studios, Accenture, I was given a lot of freedom in which direction my project would go and which technologies to use. This is both exciting and challenging as the more creative you get, the more complex the project can be. It's been a pleasure working in a company that fosters autonomy like Codam."

~ Bea (28) @ Accenture



"At Am-Flow, I worked on the development of AM-ID, a 3D part identifier using Optical Character Recognition, and 1D and 2D code recognition. AM-ID is being used to help customers automate their workflow when needing to identify 3D printed objects."

~ Euan (22) @ Am-Flow

# WORK WITH US

We believe in the importance of learning from experienced professionals and facing real-life challenges throughout our students entire educational journey.

## SHARE YOUR KNOWLEDGE WITH OUR STUDENTS



### CODAMX

*1 hour session*

Professionals showcasing the jobs available in the tech industry, their daily responsibilities, exciting projects they've been working on and cool technology trends.



### MASTERCLASS

*2 hours session*

Technical experts on a specific technical topic giving an in-depth knowledge sharing session including a live demo and source code analysis.

## TEST DRIVE CODAM TALENT BY GIVING THEM A CHALLENGE



### HACKATHONS

*12 to 48 hours event*

You give a tangible challenge, we organize it, our students solve it.

Get a chance to work closely with our students on a current challenge your organization is facing and get inspired by their creative solutions.



### CODING CONTESTS

*12 to 48 hours event*

You choose the programming language, our students test their technical skills.

Discover the technical readiness of our students in your desired tech stack in a pressure-cooker format and see how much they can impress you.





TECHNICAL INTERVIEW TRAINING: LEARNING PYTHON WITHIN 48H

ANNA Y. (32)

"After almost a year at Codam, I was ready to look for my first internship. In order to help the students, Codam scheduled technical interview sessions with a test assignment. The assignment had to be done in two days in an unknown language without prior knowledge. In our case, it was Python. The approach was straightforward, just like Codam taught me: if you encounter a problem, you search for a solution.

The biggest problem of course was the new syntax: how to write conditional statements and parse input in Python? how to declare a class? how do I parse a JSON file? Research within a Python book, manuals, and just plain internet search helped me to cover most of the problems and if something was still beyond my understanding I turned to my peers. Just like that, simple, solved.

Codam showed me I can overcome things by myself with minimum or no supervision. Now, a year later, when I look back, I see the repeating pattern of constant learning and problem solving: algorithms, maths, statistics, object-oriented approach, new stacks, new languages.

You can throw anything at me, just give me a couple of days to figure things out."



NEVER TOO LATE: LEARNING CODING IN YOUR 50S

ANNA H. (50)


"I heard about Codam about a year ago from a friend. I liked the educational concept and thought it would be interesting for my son of 17. But he was not. I couldn't forget it and one morning in May I found myself behind my laptop doing the online test. A couple of months later, I entered Codam for the first time to start MY Piscine, the selection month. It took me a short time to find out that I loved solving the programming 'puzzles'.

It felt amazing to be a part of this positive and inclusive community. And it still does. Right now I am combining my studies at Codam with 2 to 3 days of freelance work as an UX designer and of course my family with 2 sons of 16 and 18 years old.

I hope to be an inspiration for them to follow their dreams at any time in their lives"



## LET'S EDUCATE TOGETHER THE NEXT GENERATION OF SOFTWARE ENGINEERS!



### Get in touch

Victoria Ous

Partnerships & Talent Manager

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