NTU "KhPI" - RWTH Aachen Student Exchange Prorgam

Dr. Volodymyr Sokol

Aachen

→ Aachen is known from ancient times and developed from a Roman settlement and thermae (bath complex)

→ Westernmost city of Germany, Located at DE-NL-BE triangle

→ Population ~250k

→ Very young city (50k students)

→ Was a capital of Holy Roman Empire (800-1562) and place where kings were crowned

→ Aachen cathedral (ca. 805) was one of the first 12 items to be listed on the UNESCO list of World Heritage sites

RWTH (Rheinisch-Westfälische Technische Hochschule) Aachen

⟶ Founded in 1870

⟶ Almost 50k students

⟶ 9k+ Employees – The biggest employee in Aachen

⟶ 147th place in QS overall ranking, 86th in Computer Science

⟶ Greatly supports Ukraine (more than 1 million Euro in donations), 50+ students from Ukraine have scholarship

Study Program

Year	NTU "KhPI" (240 CP)	RWTH Aachen (180 CP)	German skill obtained
2022	1		B1
	2		B2
2023	3	1	
	4	2	C1
2024	5	3	
	6	4	
2025	7	5	
	8	6	

Key dates

⟶ 09.01.2023 – 19.02.2023 – Marathon in Innovation Campus

⟶ 01.04.2023 – Application deadlines

⟶ 01.10.2023 – Deutsch B2 / English B2

⟶ 10.2023 – Start of study

Evaluation

→ Up to 20 Students!

→ Grades from 1st semester:

> English
> Higher Math I
> Physics
> Programming Basics I
> Software Engineering Basics

→ Language achievements (Deutsch B1/ English B1).

→ Innovation campus selection process (Marathon)

→ Marathon (full) counts as semester work in SE2023 and (partial – 1 week) practice in WE2023

Innovation Campus is joint project of UFuture fund and NTU "KhPI"

⟶ Established in 2018

⟶ First (draft) run in 2019

⟶ Fully integrated into bachelor study in 2020

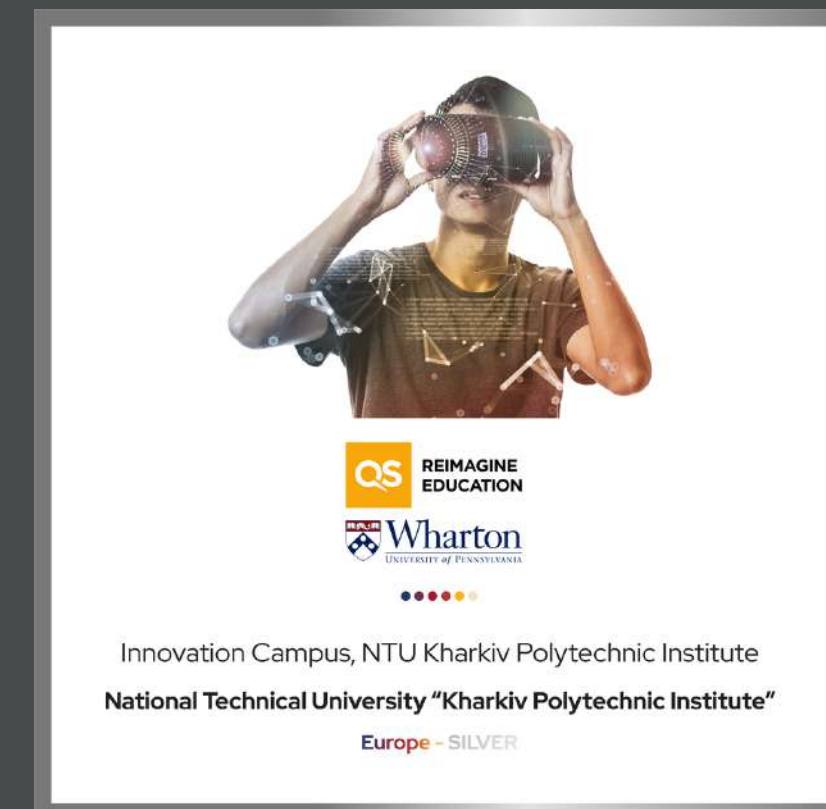⟶ 27.01.2022 – Opening of final location

International Recognition

QS Higher Education Summit

Silver Award in Europe region of 2022 QS Reimagine Education Awards

What is your Dream (career path)?

Start-up
(founder/engineer)

Researcher (bachelor →
master → PhD)

Developer
(outsource/product)

What are the skills of tomorrow?

B. Top 15 skills for 2025

1	Analytical thinking and innovation		9	Resilience, stress tolerance and flexibility
2	Active learning and learning strategies		10	Reasoning, problem-solving and ideation
3	Complex problem-solving		11	Emotional intelligence
4	Critical thinking and analysis		12	Troubleshooting and user experience
5	Creativity, originality and initiative		13	Service orientation
6	Leadership and social influence		14	Systems analysis and evaluation
7	Technology use, monitoring and control		15	Persuasion and negotiation
8	Technology design and programming			

Source
Future of Jobs Survey 2020, World Economic Forum.
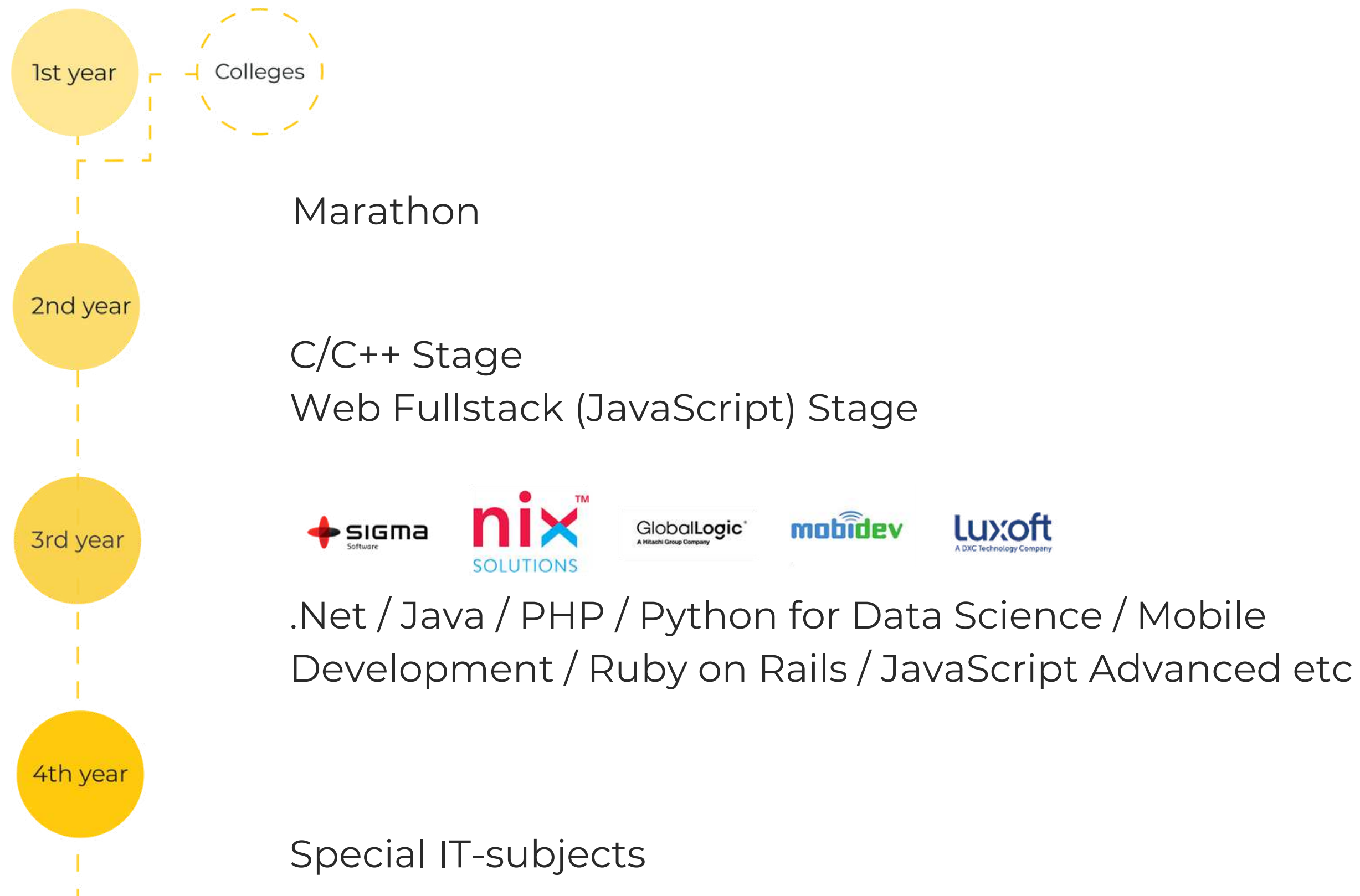
WORLD ECONOMIC FORUM

How to get those skills?

⟶ Challenge-based learning

⟶ Peer-to-peer

⟶ Individual & Team assignments

⟶ Teamwork & communication

⟶ Knowledge sharing

⟶ Gamification

Structure of Innovation Campus

1st year

Colleges

Marathon

2nd year

C/C++ Stage
Web Fullstack (JavaScript) Stage

3rd year

SIGMA Software   nix SOLUTIONS   GlobalLogic A Hitachi Group Company   mobidev   Luxoft A DXC Technology Company

.Net / Java / PHP / Python for Data Science / Mobile Development / Ruby on Rails / JavaScript Advanced etc

4th year

Special IT-subjects

Silver bullet → Dual education

↗ Work where you study, study while working!

↗ True individual learning path!

↗ Close integration! No additional courses or academies necessary!

↗ How do we achieve that? Company processes and requirements are integrated into their challenges!

↗ Full support from experienced employees

↗ Monthly reports of your progress

↗ Coworking zone is available at Campus

↗ All your activities will be tracked by company and considered as a part of your study program!

Rules of engagement

⟶ (Almost) No lectures!

⟶ No additional fee for Ukrainian students!

⟶ You still have some math, English and sports obligatory!

⟶ Everything is online!

⟶ Do not forget to register to group assignments!

⟶ Group should consist of 4 people max!

⟶ Every group challenge (after Marathon) must be presented!

⟶ Campus is available 24/7 (no sleeping allowed!)

Worst mistake ever!

No Plagiarism is acceptable!

Team challenge doesn't mean the same code for all!

First time – zero score for whole task

Second time – say goodbye to Innovation Campus!

National Technical University "Kharkiv Polytechnic Institute"

Team

Volodymyr
Head of Innovation Campus

Mariia
University Communication Manager

Iryna
Community Manager

Rositsa
Companies Communication Manager

Artem
Technical Manager

Gregory
LMS Green Team Lead

Pavlo
Methodology and Technical Manager

Let's Start!

⟶ Start improving your German and English!

⟶ Check your e-mail at the beginning of January 2023

⟶ Register!

⟶ Accept challenge!

⟶ (Bonus) Ask you experienced colleagues for feedback!

Ask your question in chat!