

The image features the text 'GANKC' in a large, stylized font. The letters 'G', 'A', and 'C' are white outlines, while 'N' and 'K' are solid black. The text is set against a solid orange background with faint, light-colored abstract lines and shapes, including a large leaf-like shape on the left and a blue-outlined shape on the right.

GANKC

Code Forward

10 Weeks

Learn to code.

Design, build, and release an app.

Change your community.



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At Code Forward, we build technology to create a better world. Working with tech industry experts, our students design, build, and release an App that addresses a problem they've identified in their community.



- Gakko—meaning “school” in Japanese—was founded as an innovative, inclusive, international summer camp in 2011 by entrepreneur Kenta Koga (Yale '14). Gakko started in Japan, but now operates camps and afterschool programs around the world in addition to a suite of digital learning tools in several languages. Gakko NYC is a space for tomorrow’s coders and musicians.

The programs offered at Gakko NYC give high schoolers the opportunity to study technology or music with industry-experts committed to creating personalized learning experiences. Every student leaves the program with a completed, portfolio-worthy app or an album.



Key Details

- **Grades 9–12**
243 Canal Street
Program Tuition: \$1,980
50 Class Hours

Winter, Spring, & Fall Afterschool Programs:
10 weeks / 5 hours per week

Summer Day-Camps:
2 weeks / 25 hours per week

Visit us online for the most up-to-date program schedules: www.gakkoproject.com/afterschool



Curriculum

- At Code Forward, we build technology to change our environment for the better. All of our students design, build, and release an App that aims to fix a problem they have identified in their community.

Over the course of ten weeks, they go through week-long modules that cover the fundamentals of Computer Science and Programming, as well as a variety of Special Topics that aim to deepen their knowledge and mastery of technology. They work with social entrepreneurs and professional designers to release a beautiful and meaningful solution to a real problem and showcase their App at the end of program Demo Day.

Learning Outcomes

Our students will learn:

The fundamentals of computer science and programming
+ Including data, logic, abstraction, and algorithms

Web development with the most relevant tools and technologies
+ Including JavaScript, HTML & CSS

How to identify problems and build meaningful solutions
+ Using best product and design practices

Universal and applicable skills
+ Including critical thinking, logical reasoning, and self learning

The importance of humanist values
+ Empathy, humility, resilience, curiosity, communication, collaboration, and leadership

Topics Covered

What is Code?

What is binary code? What is a programming language? How do computers work? Students will learn the relationship between humans, code, and computers.

Building Blocks of Code

Students will learn the fundamentals of Computer Science and Programming. We will cover the building blocks of any program: the flow of a program, how to store and manipulate data, basic logic and algorithms, and how to write complex and maintainable code with the help of abstractions.

The Internet & Coding for the Web

The Internet plays a part in almost every piece of technology. Students will learn how the Internet works, and how to code for the Web, be it by building web apps with HTML, CSS, and JavaScript, or making requests to web APIs.

Collaborating on Code

Collaboration is essential to software development. Students will learn how to collaborate with other coders on projects using Git and Github. They will learn how to pair program and how to give each other kind, actionable, and meaningful feedback.

Design Principles

Students will learn the fundamentals of User Experience and Product Design in order to build an App that is usable, beautiful, and addresses their chosen issue meaningfully.

Releasing Code to the World

Building a great app is one thing, releasing it to users is another. Students will learn how to publish their apps (on the Internet, the App Store, or equivalent), how to debug issues, and how to iterate on a project based on user feedback.

Ethics & Code

"With great power comes great responsibility." Students will explore what it means to build software responsibly, and how to design products with access and inclusivity in mind.

Security & Privacy

Internet users are increasingly worried about protecting their privacy and data online. Students will learn the importance of protecting themselves in the digital space, as well as best practices for encrypted communication, preventing being tracked while browsing the web, and general security advice for computers and smartphones.



Alex Qin
Director of Technology

→ Alex Qin is a Brooklyn-based software engineer and educator. Originally from Paris, she moved to New York to attend New York University's Courant Institute of Mathematics, from which she holds a B.S. in Computer Science.

Alex cares deeply about access to computer science education and leveraging technology to create positive social change. As such, her work has lived at the intersection of software, education, and access. Prior to joining Gakko, she was the Web Engineering Team Lead at Skillshare, and the Curriculum Director at Coalition for Queens.

Alex has taught many different types of learners, from high schoolers to adults, and has found that all of her students fall in love with the endless creative possibilities of code. Her unique experience as both a professional software engineer and seasoned teacher allows her to craft curricula that remain relevant in the fast paced and ever changing world of technology.

She is a strong advocate for diversity and inclusion in tech and spends much of her time building inclusive coding communities and speaking about her work at international software conferences, on podcasts, and on television.



Facilities

- Our facilities include laptops, high speed WiFi, Apple and Android mobile devices, and various programmable hardware (Jewelbots, Arduino), all housed in a beautiful space designed for creativity and productivity.

Requirements

- – Grades 9-12.
- Prerequisite knowledge and skills:
 - + Passion for technology.
(ie. an avid user of the Internet, has favorite mobile apps.)
- Equipment needed:
 - + Laptop Computer: Although students are encouraged to use their own laptops, Gakko will provide laptops on loan to qualifying students for the duration of the program.
- Time Commitment:
 - + 5 hours per week in class
 - + 5 hours per week of practice outside of class

Admissions

- We encourage anybody interested in becoming a student at Gakko NYC to apply. Gakko is firmly committed to providing education that is accessible and inclusive and we absolutely do not and will never discriminate on the grounds of race, creed, ability, gender, sexual orientation, or any other facet of your identity.

Tuition and Fees

- *Program Tuition*
Program tuition is \$1,980 and includes access to all Gakko NYC events that take place during the quarter in which tuition has been paid.

Need-based Tuition Assistance

Gakko NYC is firmly committed to financial accessibility. A limited amount of need-based tuition assistance is available for every class.

**For application and tuition details, visit us online at:
www.gakkoproject.com/afterschool**

**Or contact us at:
newyork@gakkoproject.com**

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