

# IOS MOBILE DEVELOPER

**GINA BUILDS FEATURES AND WORKS OUT THE BUGS OF APPS AND PROGRAMS RUNNING ON APPLE MOBILE PLATFORMS.**



iOS developer Gina was in a woman’s study class at Rutgers University in 1999—toddler days of the Internet—when she made a bold move that would define her career. “In the background I heard someone say, ‘We need a website for the women’s studies program.’ I jumped up and said, ‘I know how to make a website!’ I didn’t actually know what I was doing, but I said I would figure it out.”

Today, Gina is an iOS developer at Kickstarter, the tech startup that crowdfunds money for creative projects, based in Brooklyn, New York. On the job, Gina works with the lead iOS developer to build new features and fix bugs on Kickstarter’s App.

**iOS**  
the operating system used by Apple mobile products, like iPhones and iPads.

**crowdfunding**  
funding a project with small amounts of money collected from many people, usually over the internet

As was the case for much of her career, Gina was hired at Kickstarter because she actively sought out work she hadn’t mastered. “In my interview at Kickstarter, I said I was looking to really learn, that I had gaps to fill and wanted a mentor,” she said.

## FOR THE RECORD

### EDUCATION

**HIGH SCHOOL:**  
**Villa Walsch Academy**, in Morristown, New Jersey  
**Favorite subjects:** AP Biology, Art

**COLLEGE:**  
**Rutgers University**  
Bachelor of Science in Evolutionary Anthropology

**GRADUATE SCHOOL:**  
**Goldsmiths College, University of London**  
M.A., Image and Communication (Electronic Graphics and Photography)

**INDEPENDENT STUDY:**  
Developed skills in web design and programming languages.

### WORK HISTORY

**FIRST JOB:**  
**Web Designer** for Women’s Studies Department at Rutgers University

**AFTER COLLEGE:**  
**Freelance and odd jobs** for 2 years

**AFTER GRADUATE SCHOOL:**  
**Freelance Interactive Developer**  
For many well-known entertainment companies and clients throughout the years.  
**Associate Director of Creative Technology** at an advertising firm  
**Software Engineer** for a small startup  
**iOS Developer** at Kickstarter in Brooklyn, NY

**PASSION PROJECT:**  
Developing her own mobile game app.

### YOU MIGHT LIKE THIS CAREER IF:

You are someone who is self-motivated and forward thinking. You are eager to learn new skills even if no one tells you to. You can think creatively, problem solve, and manage your work with both independence and team collaboration. Your skills and employment opportunities may change fast, but you are confident enough in yourself to think ahead and stay on the cutting edge of your profession.

“They were really into that.” In a historically male-dominated field, Kickstarter also loved that Gina was a woman. “I have never met so many female programmers in my life,” Gina marveled. In March of this year, Gina joined a team of eight female programmers—still uncommon in the tech industry. Luckily, Kickstarter is a model for the future: a supportive environment that seeks out talented women who code. “It’s pretty awesome,” says Gina, succinctly.

## DECIDING WHAT TO STUDY

Gina lived with just her father, who often worked late as an OB/GYN. She spent a lot of time at home alone, glued to a computer and exploring the early stages of the internet. While her father delivered babies, Gina spent hours online reveling in

the magic of the new technology. “I took to the Internet like fish in water. I had a lot of social anxiety, so not having to interact for certain things was something I liked,” She recalled. “My dad would yell at me to come downstairs because it was 2 AM and it was like twenty bucks an hour,” she recalled, laughing. “I just couldn’t get off that thing!”

But the web was so new that Gina had no idea she could make a career out of building it. In high school, she was drawn to two subjects: animals and art. She loved her AP biology course and signed up for after school art classes. When it came time to pick a college and something to study, she felt she had to choose one or the other. “I didn’t know there was something called graphic design, where you could make art

with computers. That would have been awesome to know,” said Gina. “I went to the University of Maryland in College Park because they had a giant building that said ‘Zoology’ on it,” she said about her decision to study animal life. “Science is very calculated and objective. Art is very subjective. If someone is telling you how to do something, it can take away your creativity and create limitations,” Gina reasoned. Zoology it was.

During Gina’s second year at Maryland, a tragedy upended her plans. The boy she was dating from Rutgers University died in a car accident. In the aftermath and grief of losing someone close, Gina became close with his best friend and the two started dating. She felt she needed a bigger change and decided to transfer to Rutgers.

Not all of her previous credits transferred, though, so she had to take a core curriculum class—which happened to be about programming—called Visual Basic.



## WORKING OUTSIDE ON THE ROOFTOP GARDEN

Newer companies and startups, like Kickstarter, often have creative ways to attract and keep their employees interested and happy. Sometimes Gina likes to work from the rooftop garden where employees can also forage for healthy snacks, like tomatoes, blueberries, eggplant, and zucchini.

“I met amazing people from all around the world and came out of my shell”

“I was really in awe. You were writing some bit of logic, and then it’s doing things on a screen. I just understood it right away,” Gina recalled. It was around 2000 and Gina started buying books about coding, and teaching herself to do it. Through her new boyfriend, who majored in graphic design, she learned about Photoshop and Flash. “Flash was my answer to art and science,” said Gina of the program that let her build creative, animated segments with code.

**TEACHING HERSELF THE SKILLS SHE NEEDED TO CODE IN COLLEGE**

Immediately, Gina’s compass was set to learning computer languages. Plus, she learned she could make money from it. The website she made for her women’s studies class paid her \$500, “which, at the time, was like one million dollars. Pretty cool,” she realized.

Word spread at Rutgers that Gina could make websites. The head of LGBT studies asked her to make one for their department, too. And, when it was time for Gina to make a final project for the

class, to Flash she went. “We could do anything related to the material we’d been learning. I used Flash to make stop motion animation with Barbie dolls. It was subversive. I remember people laughing. You get addicted to entertaining people. I fell in love with Flash from that project.” Gina graduated with a degree in evolutionary anthropology, but the illusion that she would work with animals was over. She understood she would get a job as a web developer.

**GOING TO GRAD SCHOOL IN LONDON TO BUILD A PORTFOLIO**

Out of college in 2001, Gina did random jobs—data entry, getting paid to line up for game shows in LA, where she and her boyfriend moved after college. After work, she would do “a million tutorials” on the computer using books she bought in the computer section at Barnes and Noble. It took over her life. “It was to the detriment of forming new relationships, side note,” said Gina, “always wanting to be on the computer and learning.”

Gina understood she needed a portfolio, and with no professional experience, that meant graduate school. From 2003 to 2004 she attended Goldsmiths College in London, part of the University of London. She submitted her own Flash projects for her application, and that was enough to get her in. Gina studied Images and Communications with a focus on electronic graphics and photography.

“It was one of the best experiences of my life,” said Gina. “I met amazing people from all around the world and came out of my shell. I got to explore things like Final Cut Pro, we got to make videos and do Flash and photography and all sorts of artsy things.” It also got Gina thinking about the work she did on a deeper, academic level. “It was a lot of theory about the way we interact with the media and the role you play as someone who creates interactive media. It allowed me to be more creative about how I could integrate all these different tools, though Flash was still my focus.”

## FIGURING OUT WHAT IS AND IS NOT HER DREAM JOB

Gina thought her dream job was to make kiosk animation at the Museum of Natural History; it would integrate science, art, and computers. She interviewed for a position there but didn't get the job. "I was bad at interviewing back then. I couldn't be natural. I didn't click with the last head person," she remembered.

But it was a blessing in disguise. The museum told her the most she could make there was \$50,000 a year. It sounded like a lot, but compared to commercial work, it was pennies. Gina's leap into advertising happened by chance. There was an early social network in 2002 called Friendster, and on her profile, Gina mentioned she knew Flash. A recruiter saw it and reached out, saying she was looking for someone who could use it to create ad banners.

"I said I had no idea what that really meant, but that I would do it, I'm on board," Gina recalled. "I went online and looked at websites that had Flash banner ads and recreated them using screen shots until I could mimic what the ads looked like exactly." That practice gave Gina a portfolio to secure her first freelance job, and get her career underway.

Eventually Gina wanted the stability of a full-time job. She landed her first one at an ad agency called Fearless Concepts. She learned HTML, CSS, Java Script, and more Flash—front-end tools that make a web page look prettier—and her clients were big. For Def Jam Records, Gina designed

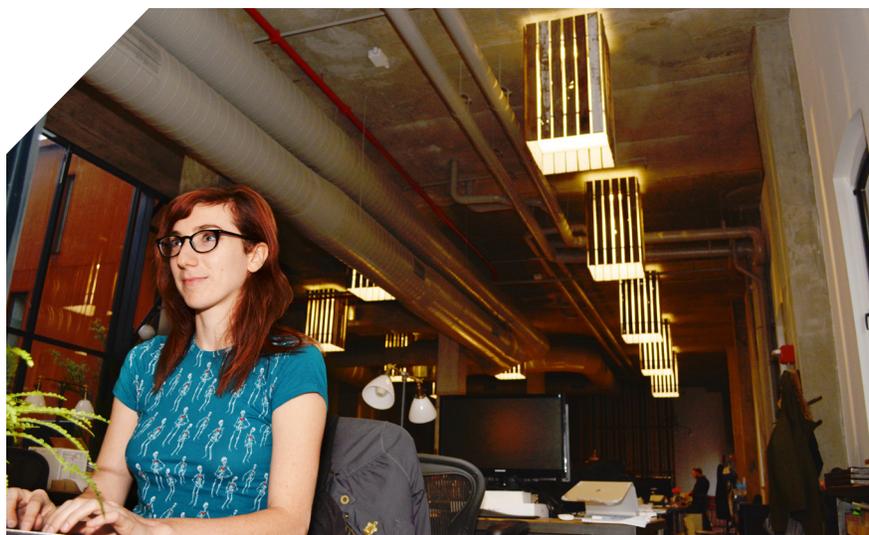
contest pages for artists like Janet Jackson and Rihanna. But there was one major issue: "I was the only female in the company out of 15 people who worked there," said Gina. "It was like a college frat house. I sat next to the kitchen, no one ever took the trash out, so it smelled like garbage." Gina became unhappy and the poor quality of the work environment made her leave.

Throughout the next eight years, Gina cycled through a number of jobs—but each time she made sure that her title and pay improved. At a place called Deep Focus, where she worked between 2007 and 2008, Gina designed, animated, and developed interactive web experiences for high-end clients like Sony, HBO, Disney and Fox. "I had a few choices," said Gina of deciding to work there. "It was the best choice I ever made, because I went where I knew I was going to learn and grow."

**"One thing I would say that is important—every time you switch jobs, you can bump up your salary quite a bit"**

But even there, a work environment that favored males made Gina leave. "There was a guy getting paid more than me who had less experience. It really annoyed me. I asked for a raise and they said, 'We can't.'" Money wasn't being managed right, and at that point half the staff was being laid off."

A friend was starting a company called VHX, which would let moviemakers sell their videos from their own websites. He asked Gina to come on board. "I said, 'I don't want to use Flash. I knew how to do it well, but that if I kept on doing it, I would make myself obsolete. It turns out that's the nature of programming: learning languages. You have to be adaptive, basically.'"



Gina said she would work for VHX under one condition—that she build their iOS App. She had been trying to learn alternative, easier versions of mobile programming, but knew she would hit a roadblock. “Eventually, I said I have to learn objective C, which actually lets you write for iPhone.”

Once more, Gina put in the work of learning something brand new. She stayed at VHX until the company rolled out their app. Then, a friend spotted a position at Kickstarter on a New York University listserv. Gina had had a more diverse programming background than many candidates—and Kickstarter loved that.

“It’s part of their culture,” said Gina of their willingness to hire people who might not fit the traditional developer mold. “They’re heavily focused in art, film, and science design. They want multiple perspectives. They think, maybe people are more interesting when they don’t know what they’re doing when they come in.”

Because Kickstarter’s iOS app was already built, Gina felt especially confident being up front about wanting to work with a mentor, especially because there was yet another iOS language called Swift that Gina needed to learn. “In a couple of years, we will all be writing in Swift instead of the current language, Objective C,” Gina foresees.

**“They want multiple perspectives. They think, maybe people are more interesting when they don’t know what they’re doing when they come in.”**

## WORK THAT IS BOTH CREATIVE AND TECHNICAL

Six months into her new position, Gina is at the far end of a long road, and happy. She lives just over a mile from Kickstarter in Northern Brooklyn, and begins every day with a 12-minute walk to work, “the greatest gift of her life.” At the office, she

is working on releasing a new app feature, which requires two tasks: submitting upgrades to the App Store, and fixing bugs from the old model. On a recent

Thursday, she conducted an A/B test, which sends the new version to half of the current users, and the old model to the other segment. Gina tracks whether the new model leads to more people backing Kickstarter projects. If it does, the upgrade is a success.

The A/B test work lasted until lunch. “I went for a walk with two female developers to a local place called the Jungle, where you can get nut-free vegan food,” said Gina. Kickstarter takes their lunches seriously. Gina is allotted a full hour for it—and takes it—every day. Eating at desks in isolation (standard in the

## GINA MEETS OTHER WOMEN IN TECH AND STAYS UP-TO-DATE AT PROFESSIONAL MEETUPS

Recently, Gina co-organized a monthly Meetup with a lead developer from Etsy to promote learning Swift, the iOS language everyone will need stay relevant. “Meetups are awkward, especially with programmers,” said Gina, frankly. But in ten short years, the field is nowhere near where it used to be, which means there are many, many more women.

“Now there are so many girl developers, and all sorts of organization for female coders: Girl Develop It, and Black Girls Code. Eventually the momentum will build, and there will be women in senior positions, and it’s starting now. Young girls who are about to enter the field should not be afraid, and it’s really important they see a senior figure in their likeness who they can look up to.”

**Meetups** are a way to meet others with similar interests for activities or to share ideas. You can check [meetup.com](http://meetup.com) to see groups for your interests, or start your own meetup group.

industry) is not encouraged. Afterward, Gina met with the senior iOS developer to review their next project. She showed him a new feature she had created, which he loved. "That was really cool," Gina said of his feedback. Another thing she loves about Kickstarter's environment: because creativity is encouraged, they also allow for whatever work method brings about the greatest productivity for each individual. If that means sharing an idea

mid-process, great; if that means not unveiling something until it is a finished product, no problem. "The management structure meets with us every week to see if there is something wrong, and to make sure we are supported," said Gina. "That's all you really want. You want good people, and you want to feel safe."

The meeting with the senior iOS developer took Gina through the rest of the afternoon. Most nights, Gina would meet a friend for

dinner. If not, she'll get back to working on her career-long dream: "It's time to release my own app, she says. "It's actually a lot of work to write a game, so much work that I don't know why anyone would do it," Of course, that secret ingredient is love. "I'm doing it because I get to design and program the entire thing myself, and have no one else tell me how to make it, and that feels really good."

## DATA FILE

DOT: 030.162-010 O\*NET:15-1131.00 HC: IRC

### WORK DESCRIPTION

iOS Developers are like a specific kind of computer programmer. They use certain programming or coding languages to tell a computer, or iPhone or iPad what to do. Writing code can take a long time and requires very acute attention to detail. In order to talk to a computer, you need to break every problem or action down into a series of the simple instructions. There is room for creativity in the bigger picture, but a lot of time is spent on very small details and text-based instructions.

Many companies need to have programmers and developers on staff. These companies could be very large and wealthy, like Google, or Apple, or be a small startup that is often run by younger people with a good idea, or even a small nonprofit organization that wants to get its message out to help people.

### WORKING CONDITIONS

Most work is in an office with a considerable amount of time spent sitting and working independently on a computer. Some like to listen to music, audiobooks, or podcasts through headphones while they work. To encourage more collaboration and socialization, many companies offer incentives for teamwork and social activities away from your computer screen. These perks can include game rooms, gardens, massages, group lunches, and office parties that cater to the interests of a youthful employee base.

### PLACES OF EMPLOYMENT

While freelance work is common, there is no shortage of companies that need programmers and developers on staff from advertising and promotions firms, startup technology companies, and most large corporations.

### EDUCATION AND TRAINING

A bachelor's degree is very common but not absolutely required. Because the skills necessary to be competitive change so fast in this industry, some people are able to teach themselves the skills they need. Earning an associate's degree or certificate from a coding "bootcamp" is also possible. Many also attain a master's degree in related fields to gain a variety and depth of skills to set them apart from other candidates.

### JOB OUTLOOK

Growing. Projected 23% growth through 2022.

### SALARY RANGE

U.S. median wage: \$45.92 per hour, \$95,500 per year, depending on education, experience, location, and employer.

### RELATED OCCUPATIONS

Computer and Information Research Scientists, Computer Programmers, Interactive Media Developers, Computer Support Specialists, Computer systems analysts, Information Technology, Network

and Computer Systems Administrators, Software Developer, Web Design, Web Developers, Actuaries, Mathematician, Statistician

Check career pathways in Advertising, Art, Computers, Entertainment, Mathematics, Research, and Self-Employment.

### WHAT YOU CAN DO NOW

There are a lot of coding games, groups, and free tutorials available online. Some free courses allow you to build your own games. Look for free coding courses at Udacity, Udemy, Coursera, and edX.

You can also learn a lot by building your own websites. Get started with a free site from wordpress, for example, and learn how to build or modify your own theme, or create plugins.

### LIFESTYLE/HOURS

Work hours may be typical daytime hours though often companies allow flexible work hours that include coming in later in the day and staying into the evening. Opportunities to work from home, particularly in a freelance position, are common. Sometimes extra hours are necessary when there is an upcoming deadline or a bug needs to be quickly fixed.

**The subject of this biography is not available to answer personal inquiries.**