MAKERS

6 Inspiring Tips for Taking the Leap into Software Development

From passionate software developers in the Makers community

makers.tech

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Introduction

As Evgeny Shadchnev, founder of Makers Academy, has said: "During this difficult period of economic uncertainty, it's important to emphasise the skills that are needed to advance our digital future. Coding continues to be the most sought after requirement for businesses, making it an ideal career move, especially in a post-Covid-19 world where technology will be critical to offering work flexibility and expertise to spur on innovation in everything from healthcare to cyber security and research.

Here at Makers, we've always wanted to encourage more women to play a part in developing tomorrow's breakthroughs. There's so much talent in the UK, we wanted to share stories and tips from some of the best, high-calibre and game-changing women in tech.

We know that the number of women in the tech sector has remained stagnant over the past 10 years at around 16%, with a lack of role models in the sector playing a part. Young women have said that they'd like more encouragement from, and access to, women in technology roles.

We run an annual Women in Software Power List, and we also offer a women's discount to those applying to train at Makers. We want to make women - especially BAME women - more visible and prominent in tech.

We've gathered some tips and stories from around the web, from six of our Makers alumni - we hope you enjoy. If you're interested in learning more about Makers, this is a **great place to start.**

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"If you want to change your life, you can."

- Chiaki Mizuta

Chiaki is an ex Pastry Chef who went through Makers to become a Software Developer. She is now a Junior R&D Software Engineer at Holition. The agency is focused on Augmented Reality for beauty & luxury brands all around the world.

Her focus is Machine Learning and Computer Vision solution for potential products. Her most recent project is wrinkles analysis project, where it takes the user's face as an input and predicts what category the user's face belongs to by analysing different areas of the face. It involves supervised learning and deep convolution neural networks. She's worked on this mostly all by herself from data collection to training.

Chiaki shared her typical (pre-pandemic!) routine with us in **'a day in the life' post here.** We've included excerpts from it on the next page.

I wanted to be open with my story.

If it encourages other people to change their life, that makes this worth it. I know from my own experiences that you really can change your future, no matter what your past looks like. I dropped out of high school because of depression. I went to a university I wasn't happy with and studied something I wasn't too passionate about.

I became an English teacher but was fired because of my depression, then I got a job as an interpreter but was fired so that the company could cover up sexual harassment. I was devastated but didn't want to give up on contributing to society, so I started working in a kitchen at a supermarket. By that point, part of me had given up on working in an industry that values intellect.

I had been depressed when everyone else seemed to have been making an effort in their careers during our early twenties. After regaining my health, I eventually became a Pastry Chef and came to London under the Youth Mobility Scheme visa. Coming to London had been my big dream for seven years (after I visited when I was 20). I enjoyed making cakes but always wanted to go back to an intellectual career.

I met my partner who is a Computer Scientist, then met a friend who had recently gone to Makers and got a job through it. I decided to study programming on my own while I was working full time for a year. Going to Makers was a big decision — which turned out to be one of the best I've made in my life. I never wanted to give up on my own chance at happiness. You always hear the phrase "never give up" but it's really true.

Never give up on yourself or life... you always have the power to create a better life for yourself. Now I'm working for an amazing company called Holition who hired several Makers from our cohort. They generously decided to sponsor my visa which I'm truly grateful for.

I'm still on training and every day is a struggle or a massive joy — sometimes both. Holition hired me and allowed me to do work for them because they could tell that I have the ability and passion to learn, which Makers enabled me to prove in various ways.

Currently my work has nothing to do with web development but Makers taught me how to learn and how to persevere. I can't wait to gain more skills and knowledge so that I can contribute as much as possible to the company. My future plans include doing a postgraduate course in Machine Learning. I don't know if I will actually do it but Makers gave me the opportunity to even dream about it.

If you want to change your life, you can. You are the person responsible for making the change. Like many others, I know from my experiences that Makers is there to help you do just that.

03

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Find yourself a community + set achievable goals.

"   - Kim Diep

Kim is a London-based Software Engineer, Oxford and UCL alumna and curates content & workshops to help those breaking into technology and empower those who want to improve their skills at any stage of their career.

Kim is a volunteer Python Coding Instructor and Fellowship Program Mentor with Code First: Girls and a volunteer for Women in Tech Club. She is currently focusing on C# programming, .NET Core, Amazon Web Services, Microservices and Event-Driven Systems.

Kim's software engineering interest was kickstarted by Code First: Girls, where she attended their Web Development and Advanced Ruby courses at Twitter UK and M&S Digital from Autumn 2017 to Spring 2018. Alongside Code First: Girls, early in 2017, she moved laterally from sustainability consulting to technology as a Business Application Consultant tasked with implementing Agile software development for the first time in the company without prior tech experience. She then went on to receive a fully-funded scholarship to attend a 16-week intensive Software Engineering Bootcamp at Makers in February 2019 and a year placement at M&G Plc as part of their fellowship program.

Kim believes that code is more than just a tool; it's the common thread bringing together different disciplines and ways of thinking. She is open to experimenting with new coding and technology practices and constantly evolving her work to empower the community to think critically about technology. She believes technology can improve social mobility and therefore, we have a duty to provide accessible workshops to all.

Below, she did an interview with Codebar which we absolutely loved. We've taken our favourite parts of the interview and included them on the right.

When I was 5, I got my first computer and wanted to be a computer hacker.

I imagined myself working undercover as a secret agent, making potions and hacking through computers, like Disney's Kim Possible saving the world from monsters! I quickly realised this wasn't a 'real' job; although I wished it was! :)

At school, there wasn't much of an emphasis in tech, so I focused on exploring careers in Law and Medicine. I didn't know what I wanted to do after college; making decisions felt like the end of the world. Growing up, it was drilled into my brain that university was the only logical option.

At university, I wrote my first line of code whilst trying to find a better way to extract some climate data for my project; back then, coding was merely a tool for me to get to the final answer. In the past couple of years, I found myself wanting to know more about how something works rather than just receiving the end output.

After graduation, I still didn't know what career was right for me; many of my friends took on great Graduate Schemes. Instead of comparing myself to others, I bounced back to forge my own path. I eventually landed a full-time role as an Energy Industry Analyst and wrote loads of reports for a market intelligence company, whilst working at my part-time tutoring job too.

My friends at the sustainability consultancy were a bunch of fantastic people, who inspired me to come into work everyday to do my best. After a year as a Junior Sustainability Consultant on the consulting team, I was given the opportunity to put forward some ideas to grow the company's proprietary technology solution, which was focused on the sustainable real estate industry.

My switch to software engineering built on the opportunities I had as a Business Application Consultant, where I engaged daily with developers to adopt the best practices of Agile, testing, continuous integration and iterative software development from scratch from a business requirements perspective.

Outside of the 9-to-5, I was also inspired by Code First: Girls, where I attended their Web Development and Advanced Ruby courses at Twitter UK and M&S Digital from Autumn 2017 to Spring 2018. I have also enjoyed being part of codebar and the technology community in London too!

Earlier this year, I received a scholarship to attend a 16-week intensive Software Engineering Bootcamp at Makers, with the eye to fast-track my career in technology over the course of the next 12 months with M&G Prudential, where I am currently an Associate Software Engineer.

My two top tips for aspiring coders:

Find yourself a community online or in-person or both!

It's so important to surround yourself with like-minded people. When you're learning, it is important to ask questions and explore what's happening in the technology industry. Technology teams collaborate all the time to generate ideas, so it is important to mix individual learning and group learning.

Set achievable goals and give yourself a retrospective at the end of each day.

Celebrate your achievements and be grateful for what you have right now.

"Plan before you code."

- Kavita Kalaichelvan

Kavita is a Software Engineer at Cleo AI. In her previous roles, including her role as a software developer at Ascential, she worked across the stack - from working on the deployment/ devops side on AWS, to building the backend data pipeline for the greenfield project she was part of in Elixir and working extensively with React.

She wrote and released Ascential's first open source project -Ruby deployment gem called stalkedbybean which allows teams to deploy their Elixir applications to AWS without needing to understand how AWS works.

She was one of two developers who helped set up Ascential's build and deployment pipeline within four months into her first programming role. She has been the main organiser for codebar monthlies London, a non-profit initiative which runs coding workshops for underrepresented groups in tech. She created the event Demystifying Tech Tests which helps people understand technical pairing interviews and transition more effectively into the industry.

She's the London organiser for PLIBMTTBHGATY (Programming Languages I've Been Meaning To Try But Haven't Gotten Around To Yet), a bi-annual Saturday coding party. She's also a lead instructor for the Code First Girls Professionals web development class.

While she was training at Makers, she wrote the following blog post. **Plan before you code.**
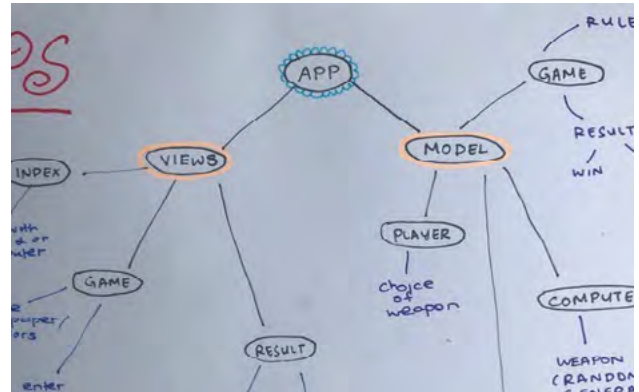
Plan Before You Code

Another weekend, another weekend challenge from Makers. (What does it say about someone when they don't even mourn the loss of a weekend anymore?)

This weekend, our project was to build a rock, papers, scissors game as a web app on Sinatra. As always, I proved that I am awful at prioritising by spending half a day looking up images for my RPS game and then proceeding to draw some custom ones on Paint.

Nothing fancy, mind you. My sister informed me that if I was going for the 'not-trying-too-hard-by-using-pictures-drawn-in-childlike-style' I had succeeded.

After completing my precocious artwork, it was time to move on to the actual programming bit. We had warmed up to using Sinatra over the past few days so I had already wrapped my head around the MVC pattern (Model-Views-Controller) which is used to structure a web application. In layman speak, we want to separate an application into these three different parts so each part is only doing what it should be concerned with. However, twenty minutes in, I was struggling.

I was too all over the place. I was writing random tests and making them pass but I was starting to lose track of what I was doing and what more I needed to do. There was no order in this chaos. During our weekly challenges, we are always given an orderly list of steps which sets out somewhat of a roadmap for us to follow.

Without one for RPS, I was flailing. To solve issues, I decided to create my own list, followed up by a simple diagram illustrating the skeletal structure of my game.

The diagram helped me conceptualise exactly what I needed to do and how the three parts of the MVC model needed to interact with each other for my game to work. The list was the roadmap I wanted. It identified the features my game needed, and broke the implementation of each feature down into 1) Writing a feature test 2) Writing a unit test if necessary 3) Making the test pass.

I did finish the challenge, but the biggest takeaway for me was: PLAN YOUR CODE. With any new project, the temptation to get stuck in right away so you can start 'creating' something is huge. I've fallen prey to it many times myself.

Yet, failing to plan out your project (in whatever method floats your boat) before beginning will almost inevitably mean that you are going to get stuck at some point. Not all logical links can be drawn in our head, let alone remembered — half an hour of staring at Atom blankly can attest to this.

"You're always re-evaluating what you think you know, so dealing with that is important.

- Ruth Earle

Ruth Earle, 45, is from Southgate in north London. Designing an app in her spare time inspired her to look into a career in coding, and she trained at Makers in 2014 and then went on to become a full-stack web developer at the financial news business, Mergermarket.

After this she became a Product Developer at AND Digital where she worked on the NodeJs layer improving code quality and error handlingMedToken: Greenfield blockchain project, as well as building out a new editorial tool for fashion shows for Condé Nast International.

Now she is a full stack engineer for SalesTrip. SalesTrip is an expense management and travel booking system on Salesforce, making it easier for people to do business from places outside the home and office so their organisations can thrive in return.

You can watch a video we filmed with Ruth years ago here. We also loved this interview she gave to the Telegraph in 2015. Ruth shares her reflections on becoming a software developer.

I always had a natural curiosity for why tech works the way it does, and was often found playing with HTML and customising my PC or Mac. When the internet kicked in, my interest in coding was piqued by web pages, animations, real-time apps – that sort of thing.

However, as a full-time, stay-at-home mother with a seven-year-old daughter and a five-year-old son, it wasn't something I thought of as a career option.

Before becoming a mother I had worked in various customer-facing fields, most recently running a well-known weight-loss franchise. I really enjoyed it, but sold the franchise to focus on being a mum.

When I became a single parent, though, I wanted to be a good example to my children and get back into a career. After four years out of work, I decided to become an occupational therapist.

My brilliant mother looked after the children while I studied, and at the same time, I began developing a web app that I hoped might provide a passive income that I could perhaps eventually rely on.

I was surprised how much I enjoyed building the app – far more than my studies – but I soon realised that if I wanted to earn a living I needed to learn how to code properly, and ideally without beginning another degree.

Joining Makers was one of the best decisions I have made in my life. But when I attended the graduation of a cohort the Friday before I was due to start, I was amazed and terrified. Their work was outstanding and all I could think was, "Will I be able to do that in 12 weeks?"
The course started well, with a great bunch of people from various backgrounds, but we worked hard and I found the pace stressful. I had two official meltdowns. Fortunately, the staff were superb and reassured me that I was exactly where I needed to be, and that most people go through the same feelings.

The coaches gave the right amount of instruction and hand-holding, while giving us the space to figure things out on our own. Being a developer is about problem-solving and constant learning. You're always re-evaluating what you think you know, so dealing with that is important.

06

" Be kind to yourself "

- Eithel Anderson

Eithel has a background in criminology, and has also run her own startup, providing Luxurious sweet buffets and dessert tables for all occasions. Although she's worked as a Customer Service Advisor for Banco Santander and also for TFL, she's always had an underlying interest in tech.

As such, she decided to switch careers and pursue a UI/UX developer role. After initially self teaching, Eithel discovered a need for a more structured learning environment - which led her to Makers. She is a mother of two, on the leadership team of Coding Black Females, and is now a fullstack developer at ClearScore. ClearScore is a financial technology business that gives customers in Australia, India, South Africa and the UK free access to their credit score and report.

After her time training with Makers, **course review site SwitchUp sat down with Eithel** and we've included excerpts from the interview on the next page.

1. Tell me about your background. What was your educational experience before joining Makers Academy?

I studied at the University of Greenwich and graduated with a degree in Criminology. After my time at University I spent a couple years working for Santander then I went on to work for Transport for London for 4 years before joining Makers Academy.

2. What made you decide to pursue a career in tech?

I always found the tech industry interesting but had a misconception that the only way to get into the industry was by getting a computer science degree. It got to the point where I was no longer getting any job satisfaction from my role and began researching into UX/UI and realized there were quite a few people who were self taught. This then led me to researching in to becoming a developer.

3. Why did you decide to attend Makers Academy? What were your goals for the program?

I initially began my learning journey by self teaching, using resources like Freecodecamp and enrolling in courses and workshops such as Django Girls and Code first girls. I felt like I needed some form of structure and after attending Afro tech fest conference in London and speaking to a Makers alumni I decided to look into the curriculum. I also reached out to a few other Alumni's from Makers on Linkedin as well as other bootcamps. Makers won me over by how much support they offered after completing the course. I really wanted to secure a role once completing the course which i'd say was one of my main goals aside from learning to code - so job support was a huge factor for me.

4. There are an increasing number of available bootcamps. Why did you decide to choose this program over others?

I went for Makers mainly because of the fact that they seemed well known within the industry and everyone I had spoken to only had good things to say about them. I also soon came to realize that some bootcamps do not offer career support once the course is done, and for someone like me who is completely new to the industry I felt this was important as I needed guidance.

5. For you, what were the pros and cons of attending a bootcamp?

The pros would be that the curriculum was very structured and covered a lot of important fundamentals in programming. Another would be that you also have amazing coaches that offer support during the course and what sets them apart is that they don't just feed you the answers but they ask you questions that allow you to explore things for yourself and understand it much better. Another pro is that you have your cohort to lean on which is a great form of support. I don't know if it's much of a con but it's fast paced so may not be suitable for all and it's quite easy to fall behind.

6. How did this program prepare you for a career in tech?

The program prepared me greatly, not just by learning how to code but also pushing me to identify my transferable skills from previous roles that can be applied to my role. The course covers a lot of areas in terms of planning projects which is also important. We worked in Agile ways which a lot of tech companies do.

7. What challenges did you overcome to get where you are?

I'm a mum of two and for me it was difficult. I had to sacrifice a lot of time in order to study, which was challenging but I knew it was what I really wanted to do and it would pay off in the end.

8. What advice do you have for people who are interested in attending a bootcamp?

I'd say:

• Make sure you research all bootcamps also be open minded

• Reach out to alumni as their experience can give you an idea of what the bootcamp is like

• Be kind to yourself! Bootcamps are fast paced so ensure you take time out to recharge. Makers do daily meditation and also do yoga!

Pictured: Wellness Officer Dana leading a yoga and meditation session

"

Don't be afraid about putting yourself out there and to really aim for whatever company that interests you.

"

- Funmilayo Adewodu

While working in Accounting, Funmi was also teaching herself to code. She did this through a web development course with Code First Girls.

A friend invited her to take part in a hackathon put on by fast-growing digital-only bank Starling Bank, through which Funmi was eventually offered a job. After this she became a Product Developer at AND Digital where she worked on the NodeJs layer improving code quality and error handlingMedToken: Greenfield blockchain project, as well as building out a new editorial tool for fashion shows for Condé Nast International.

She became a Software Engineer and was involved in building and improving Transaction reporting, Loans, Payments, Personal Current Accounts, Customer verification and Euro Accounts. She gained experience in both Android and iOS development during her time there. She blogs, has appeared on the BBC and has delivered talks for Code:bar on iOS development.

She then went on to work as an iOS engineer at Yoyo Wallet. CodeFirst: Girls named her as "One to Watch" in 2018. In 2020, she accepted a role as an iOS Engineer at Spotify in Sweden. It all started with that hackathon - the full story of which you can read **here** or a condensed version on the next page.

I never really imagined I would be excited about banking until I came across Starling Bank.

I fell in love with their whole customer experience and this really got me interested in the company. I really liked their approach towards building a bank. It reflects the innovation of the current times and also meets the needs of people for building a healthier financial life.

What also appealed to me is their **Passport to Starling programme** which allows their employees to truly explore their passion and drive their careers.

Before Starling, I was working in Accounting and looking to eventually make a career-switch to Software Development. I was teaching myself to code. I took a web development course was with **Code First Girls** and I had also already secured a place on the Makers course.

I was not actively looking for a job at the time but I pursued my interests in coding and things really started falling into place for me. I was really interested in attending Starling's hackathon but I remember feeling like I did not have enough experience coding yet.

Fortunately a friend contacted me around the same time and said she had signed up for the same hackathon and she wanted me to join her team — and of course I said yes! I was excited about the serendipity of the whole thing and it felt like I was in the right place at the right time.

After the hackathon, I told them about my interest in coding and that I was keen to learn more about the opportunities at Starling. Through that, I was able to stand out and they invited me for further discussions a few weeks after.

I was then invited back for an interview which involved a pair programming exercise and some logic exercises. In the end they offered a job as a Software Engineer at the company.

My advice to other job-seekers is, first of all:

Don't be afraid about putting yourself out there and to really aim for whatever company that interests you.

It's not always easy to believe in yourself but the truth is that going through Makers really gives you the skills you need to work as a developer. Given the right environment to grow your skills, it becomes so easy to pick up new languages and frameworks because Makers has given you that solid foundation of learning how to learn.
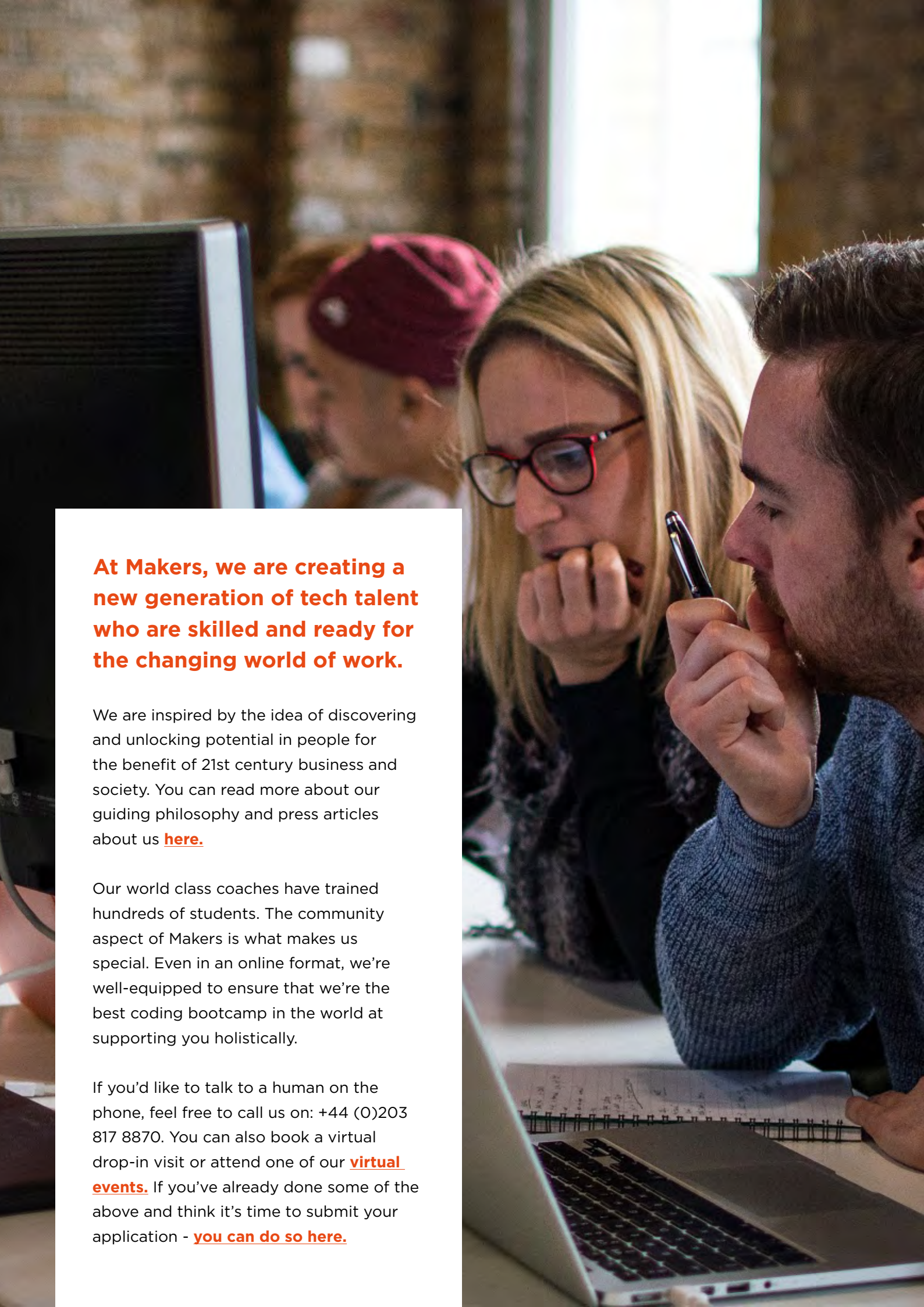
I would also say: be patient with yourself, be kind to yourself, surround yourself with supportive people, and don't be afraid to say yes to new opportunities. It can be quite daunting being a tech newbie . Getting familiar with the Tech community here in London by attending meetups and events, speaking to other people about my interests and putting myself out there really helped me along the way and I would highly recommend doing the same.

At the beginning of my career change journey I really had no idea that I would be where I am now. I have no regrets about pursuing my dream to become a software developer and choosing to go through Makers so I wouldn't really do anything differently. I now get to wake up to a great job doing what I love everyday.

The whole Makers experience was amazing and completely life changing. It has been the best form of education I have ever been through. I also got make to great friends along the way. I would say a life lesson from my experience at Makers is knowing that I'm able to challenge myself and it's possible for me achieve whatever I set my mind to. The emotional intelligence curriculum at Makers also gave me a sense of self awareness that I never really had before the course.

08

More about Makers and our scholarships

At Makers, we are creating a new generation of tech talent who are skilled and ready for the changing world of work.

We are inspired by the idea of discovering and unlocking potential in people for the benefit of 21st century business and society. You can read more about our guiding philosophy and press articles about us **here.**

Our world class coaches have trained hundreds of students. The community aspect of Makers is what makes us special. Even in an online format, we're well-equipped to ensure that we're the best coding bootcamp in the world at supporting you holistically.

If you'd like to talk to a human on the phone, feel free to call us on: +44 (0)203 817 8870. You can also book a virtual drop-in visit or attend one of our **virtual events.** If you've already done some of the above and think it's time to submit your application - **you can do so here.**

We're launching some exciting new scholarships to help under-represented talent get into tech

The scholarships will support members of these groups by providing reduced fees when applying for Makers and additional support in their tech education.

Only 17% of the UK tech sector is made up of women—only a 1% increase from five years ago. Additionally, only 2% are from a black, African, Caribbean or black British backgrounds.

With the support of our partners, we aim to reach talented people from underrepresented communities and support their journeys towards a career in tech.

These support our mission to diversify tomorrow's tech industry

We're on a mission to transform lives through tech education. We believe that everyone should be able to embark on that journey so today we're excited to announce a new range of scholarships in partnership with the communities codebar, Coding Black Females, and Women Who Code.

Find out details about the scholarships and how you can apply here.
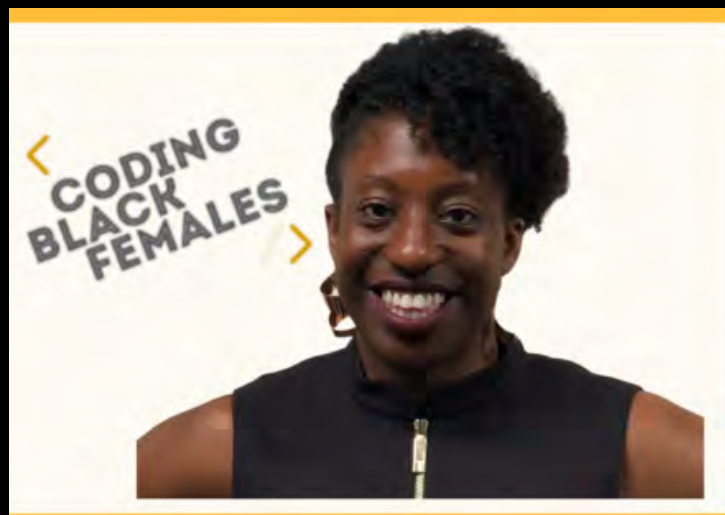
Our Partners

codebar

We're once again proud to partner with codebar, a charity that works to support minority groups in tech by providing a safe space for members to learn, network and develop their tech skills. They provide one-to-one mentoring, regular workshops and run free events to facilitate tech education to coders of all levels and to connect their community with career opportunities. **Learn more about codebar and become a member here.**

Coding Black Females

Coding Black Females was created in 2017 by Charlene Hunter. They're a nonprofit organisation who aim to provide opportunities for young black women to meet, network, and improve their technical skills together. Whether you're dipping your toe into code for the first time or a seasoned developer, Coding Black Females want you to join them and encourage black women to learn from and inspire each other. **Learn more about Coding Black Females and become a member here.**

Women Who Code

Women Who Code's mission is to inspire women to excel in technology careers. They provide resources and scholarship opportunities to create a springboard for women working in technology. They also educate companies to better promote, retain and hire talented women.

Learn more about Women Who Code here.

If you're a member of one of our partner groups click here for details of how to apply for a scholarship. Not yet a member? Register with codebar, Coding Black Females or Women Who Code and apply!