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Your Impact

Coding with confidence

Education, empowerment and employment: thanks to an alumni-funded grant students are tackling two major issues in the world of coding

Feeling intimidated by coding is real, particularly for women. Several UK studies that have highlighted the lack of gender diversity in this field and, as of 2018, only 17% of people working in tech in the UK are women. There is also a misconception that you need to be brilliant at maths and feeling it is too difficult generates coding fear. At the University of Edinburgh two female scientists wanted to address these issues.

Thanks to an alumni-funded grant, Coding Club was set up in 2016 by Senior Lecturer, Dr Isla Myers-Smith, and PhD student, Gergana Daskalova, from the School of GeoSciences. Coding was not part of the curriculum so they decided to create a space where these skills could be learned via peer-to-peer teaching. The lessons are designed to be relaxed and informal, developing “skills without the intimidation factor,” Isla explains.

Coding Club is run primarily by women, which is unusual in this field, and Gergana says that some of her favourite success stories come from women who joined Coding Club halfway through their degree having never attempted programming before. They felt they weren't good at

quantitative techniques but are now looking ahead at a quantitative career! “In my experience it comes down purely to confidence...they believe they can do something rather than their actual ability.”

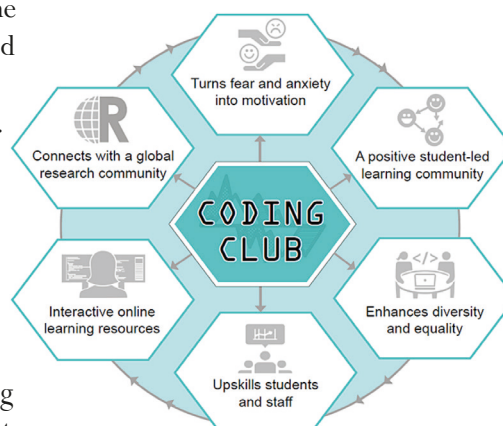
“The transformation I see in women from ‘I can't do this’ to ‘this is what I want to do for my career’ is so exciting.

Thanks to the alumni-funded Principal's Teaching Award Scheme (PTAS), the club continues to grow and develop. Alumni support meant the club can be promoted and operate on a global scale. Now there are 175,000 users from all around the world logging in to use the online

tutorials. Building on these skills, students can go into careers in sectors including medicine, manufacturing, marketing, science and education, amongst others.

Isla adds, “This is all thanks to you and your fellow alumni believing in us. Your donations have translated into really empowering students, both female and male, and giving them career opportunities they might otherwise not have. It was important for us to take away the fear and create a safe space where anyone could come and learn. Your support through PTAS is really helping improve the student experience.”

Future plans? To keep going and keep growing!



Left: Benefits of Coding Club infographic. Above: Part of the Coding Club team including Dr Isla Myers Smith (2nd from left) and Gergana Daskalova (far-right). Credit: Sam Sills - Whitedog Photography.

Fieldtrip of a lifetime...

Thanks to your support, two PhD students take their research all the way to the Arctic

Gergana and Mariana are two ecologists and PhD students here at the University of Edinburgh who both share a passion for the Arctic. “Growing up in the warm Mediterranean climate in Southern Spain, I was always drawn to wild places,” comments Mariana. It wasn’t until university that she developed her fascination with the tundra. Gergana, who you read about in the Coding Club story, is one of many students who has benefitted from multiple alumni-supported projects. She explains “I grew up in a small Bulgarian village. The Arctic was something I couldn’t even dream about.”

Their dream came true when they applied for, and received funding from Go Abroad, an alumni-funded grant. Both scientists booked their flights and travelled to the Arctic for the ultimate fieldwork experience.

Go Abroad brings incredible opportunities like these to students at Edinburgh. And it relies on support from people like you to create these opportunities. When looking for funding, Gergana and Mariana found

that most grants weren’t open to international students like them, whereas Go Abroad is open to anyone. Gergana adds, “Go Abroad is so valuable as doesn’t matter where you are from, only where you want to go in the future.”

With the alumni-funded grant, Mariana and Gergana visited Qikiqtaruk Territorial Park in the Yukon Region of North West Canada, a remote area with a challenging climate. This site has been part of a long-term collaboration between park rangers, local scientists and international researchers like Team Shrub, who have been visiting the island for decades in order to monitor long-term change. Team Shrub is a research group made up of scientists, like Mariana and Gergana, whose main goal is to understand how global change is altering plant communities and ecosystem processes in the tundra environment and across the planet. With Arctic temperatures rising at double the rate than in the rest of the planet, their work is extremely important.

Both women were able to

experience and learn vital fieldwork techniques including taking samples from biomes, carrying out decomposition experiments and using drones to monitor the changes in the environment. There is also the data synthesis collaboration with researchers across the circumpolar Arctic and around the globe, which is incredibly valuable to their project in order to gain a clearer understanding of what is happening to the environment. Their new knowledge from this once-in-a-lifetime experience has also informed and enhanced their PhD projects.

Fieldwork in the Arctic is not without its challenges but even these turned into benefits for both Gergana and Mariana. “The weather is crazy and there are no trees so you are exposed to the elements. It’s very physical carrying your equipment with you all day,” says Mariana. “Considering all the challenges you might encounter when doing fieldwork in the tundra, you are forced to become a great problem solver which has been so valuable.”

“There’s no internet access so you can’t just Google away your problems!”

Supporting the Go Abroad Fund helps students widen their horizons. Mariana and Gergana both feel the experience has inspired them as scientists and given them valuable fieldwork experience that so many of their fellow students struggle to access due to the costs involved. Thank you for supporting funds like these that help students keep important scientific projects going for years to come.

You can find out more by visiting:

<https://teamshrub.com>

<https://arcticabove.com>



Mariana (2nd from left) and Gergana (centre) in one of Team Shrub’s iconic annual team portraits. You can see more of these on the Team Shrub website as well as their fieldtrip photographs. Credit: Sandra Angers-Blondin.

Opening the door to education

Aaron tells his story about how a school club and a scholarship led him on a path to a career in law.

“Receiving my scholarship made me so happy. You hear about scholarships but you think they are really limited and there’s no way you will ever receive one. It was such a relief and a surprise!” Aaron is now well on his way to a career in law. He is about to go into his second year studying Law at the University of Edinburgh thanks to an alumni-funded scholarship, and is loving every minute.

“**University opens a lot of doors. It’s not just the education you receive but also the people you meet, the clubs you join, and the connections you make. It can make a huge difference in your life.**

Aaron’s basic costs

(Doesn’t include social activities or additional costs associated with clubs)

Rent	£375
Food	£150
Gas & electricity	£60
Internet & mobile phone	£42
Transport	£24
Textbooks	£20
Gym membership	£13
Extracurricular activities (university clubs & societies)	£30
Toiletries & household necessities	£25
Printing, photocopying & study materials	£10
Total per month	£749
Total per academic year	£6,741
£749 x 9 months (term time)	

Like many other students Aaron, who is from Edinburgh, wasn’t sure what he wanted to study after high school. He was always very academic but there wasn’t a particular subject he was drawn to. It wasn’t until his school entered a mock court club competition - competing with other schools - that he felt inspired to study law and decided to pursue it.

However, unlike a lot of his fellow students, Aaron was facing a difficult time at home. His dad left when he was little so his mum raised Aaron and his younger brother as a single parent. When Aaron was just seventeen years old his mother died. Aaron had the support of his extended family and older siblings but didn’t want to have to rely on them. Despite the very difficult situation they were in, Aaron felt strongly about being able to support himself and his brother. So he faced a very tough decision of whether to go straight into work – work that he knew would be low income and unskilled but would enable him to earn a living - or stay in education so he could get the degree in law and give himself the best opportunity for a challenging and prosperous career.

Aaron applied to the University of Edinburgh, as he wanted to go somewhere with a great Law school. He got in and thanks to donors like you, received a scholarship that enabled him take up the offer and not have to worry about working all the time to just get by.

Aaron has since joined Jiu Jitsu, gymnastics and the University Mooting Society, which has come in useful for his degree. And he has thoroughly enjoyed his first year and the subject areas studied. Child and Family Law has really resonated with



Thanks to your support Aaron is now really excited about his future and the path a law degree may lead to. Credit: Nathan Webb Photography.

him and lecturer Ms Katy Macfarlane has been particularly inspiring.

“**The good thing about law is the many paths you can take. A law degree opens lots of doors. At the moment I have a real interest in public law but this may change as I go through university. And that’s exciting.**

He plans to continue to take advantage of the opportunities his scholarship has given him and, when he graduates, intends to continue with the Diploma in Professional Legal Practice, which will allow him to practise law. Aaron has a bright future ahead of him, thanks to support from people like you. Thank you.

Creating a buzz



“Bees bring people together.” Dr Mark Barnett explains how the apiary at Easter Bush is helping in so many ways.



“When you visit the apiary it’s all about the bees. They give you a focus. Beekeeping has so many benefits for student and staff wellbeing.” Mark (far right) at a “Meet the Bees” event at the apiary. Credit: Norrie Russell.

The campus apiary began as a project in 2015 to support research at the Roslin Institute. Now, thanks to the work of Dr Mark Barnett and Professor Tom Freeman, it has flourished and is benefitting students, staff, the local community and the honey bee population.

Honey bee colonies have been in decline in North America and Europe over the last 70 years. As honey bee pollination is an essential process in food production worldwide, their decline is a critical issue for us all. They are a vital agricultural commodity. The apiary is helping to protect and enhance pollination by local honey bees. Mark and his team of student volunteers at Easter

Bush are involved in maintaining the seven colonies of honey bees at the apiary. There are typically around 20 volunteers at a time and the students can be as involved as they want; from helping educate visitors to managing their own hive.

Beekeeping is also known to help with mental health. There have been several studies that show the benefits of beekeeping on people with mental health issues, such as ex-soldiers suffering from PTSD. This seems to be for many reasons including the fact that beekeeping gives people a real skill that involves training. Beekeeping means being focussed, it encourages patience, is a social activity and a form of animal therapy. Dr Barnett is keen

to use these benefits to enhance the student and staff experience.

Thanks to the alumni-funded Student Experience Grants, the apiary is also generating public engagement with science and giving children the priceless experience of seeing a bee colony up close. Dr Barnett and his team were able to purchase eighteen beekeeping suits, boots and gloves in children’s sizes, so families and schools could visit the apiary.

As for the future? A lot more research will go into honey bees and how we can help. Developing the students’ beekeeping skills, hosting more community events and developing the food processing side of the apiary are all on the cards. Thanks to your support, the future of the apiary looks sweet.

Here are the five steps in a basic hive check:

1. Check food levels
2. Make sure the queen is in the hive
3. Inspect for disease
4. Ensure there is plenty of room to make honey and for the queen to lay eggs
5. Check for signs of swarming

Let’s celebrate!

Our community fundraisers have been very busy this year, from sponsored treks and marathons to bake sales and parties, you have raised an incredible amount for some of the University’s critical research centres and funds - making it our best year yet. Thank you!

£368,421

Income from community fundraisers in 2018/19



Most popular activity - sponsored run/race

Top areas by % funds raised

- 45% Make 2nds Count (research into secondary breast cancer)
- 17% Anne Rowling Regenerative Neurology Clinic
- 11% Euan MacDonald Centre for Motor Neurone Disease Research

Over 250
fantastic fundraisers