



Unexpected opportunities on your Undergrad, Masters and PhD

(For anyone who likes coding)

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Outline

- Benefits / drawbacks
- Approach
- Opportunities
 - Coding skills, coding competitions, Internships
 - Scholarships, miscellaneous opportunities, community

Benefits / drawbacks

(to taking on extra-curricular activities)

- Fun
- Experience new things / meet new people
- Gain new skills
- Looks good on your CV
- Might improve your chances of getting offered a job
- Having other things in your life helps if your work has a bad day
- Benefitting your community

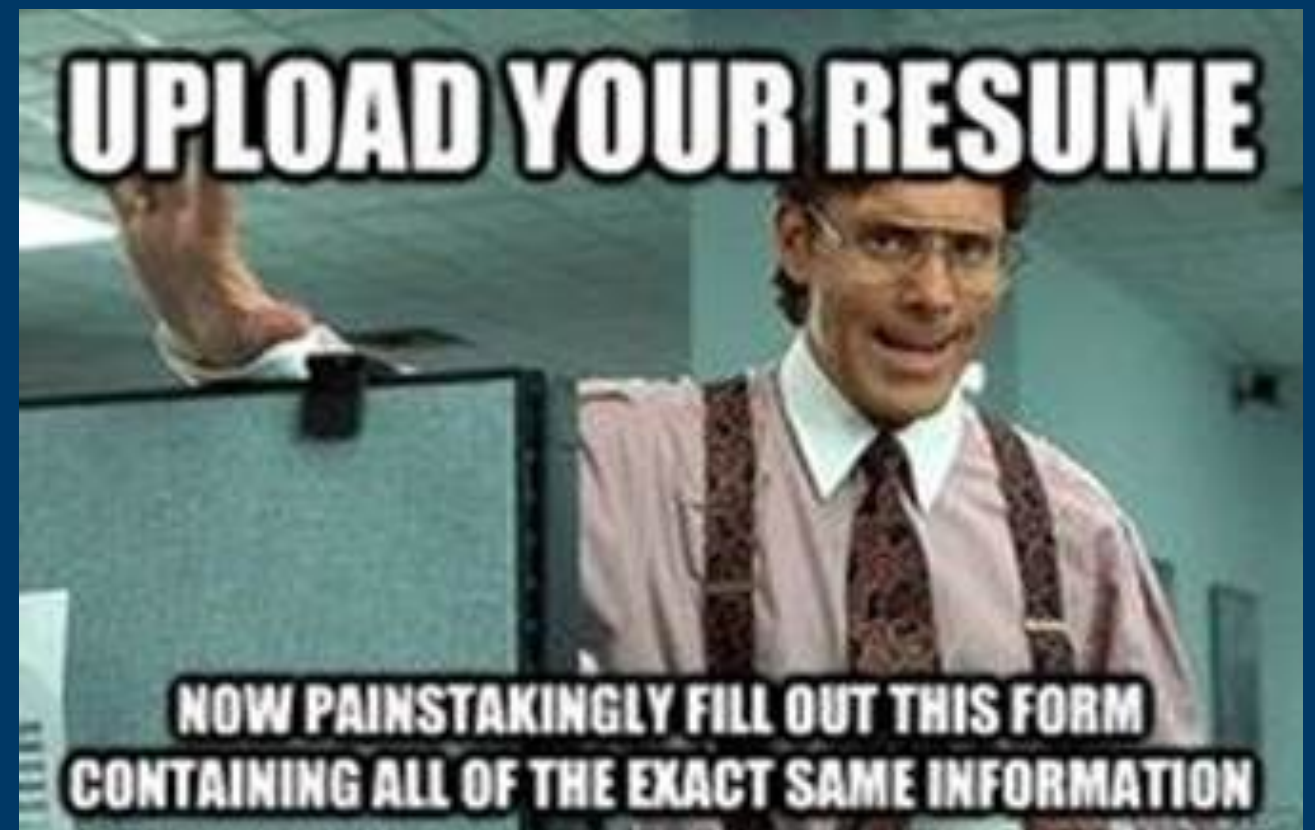
- Takes time away from your studies
- May make you stressed / tired
- You may have other home or work responsibilities
- It's ok to say that these opportunities are not for you right now

Target one or two extra things (or none!) only do what you can manage around your life

★ **Keep a good work-life balance** ★

Applying for stuff

- You don't get what you don't ask for
- Get your CV ready (clear not fancy)
- Apply, apply, apply
- Try different things
- Meeting people opens up opportunities.



Coding skills

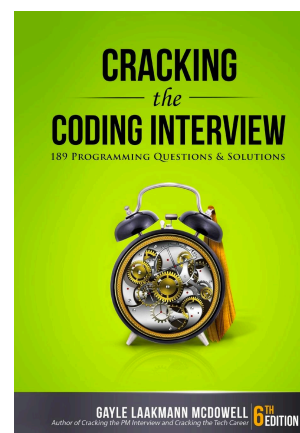
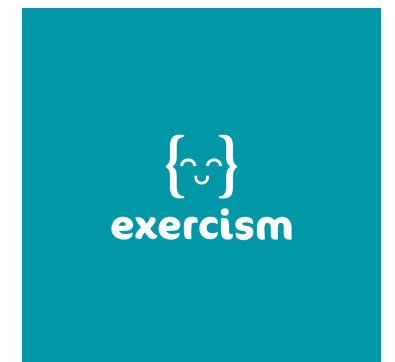
Coding skills

- Solving small algorithmic challenges
- Why? Fun, skills, job
- Important for tech company interviews
- Might be good for your course

Coding question

Example

Coding skills



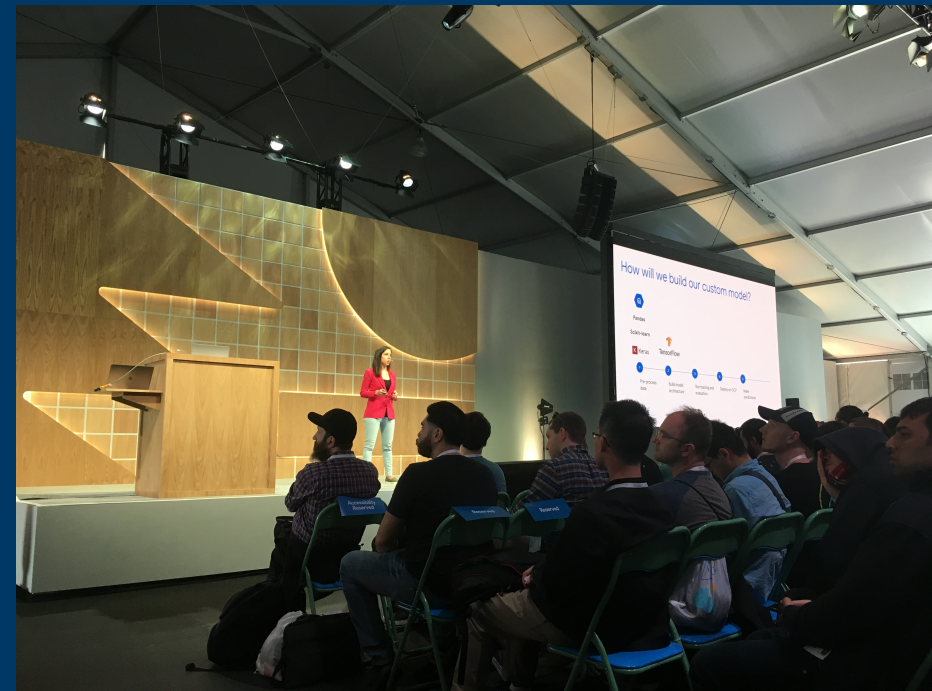
Coding competitions

Coding competitions

- Solving small algorithmic challenges in a time limited environment (some have other tracks too). Larger competitions have several rounds.
- Why? Fun, CV, prizes, job.
- Some competitions are not available to residents of e.g. US embargoed countries - check T&Cs
- Prizes - money / travel expenses to conference etc.

My experience

- My experience: Code Jam to I/O for Women.
- Top 150 win ticket and expenses to Google I/O. >1000 competitors, 1 round.



Coding competitions

Competition	Description	Dates
Topcoder	Challenges all year. Topcoder Open (TCO), several different tracks e.g. Algorithm competition and UI design competition.	All year
Code Jam	Google competition. Individual coding competition - several rounds.	register by 5th April 2020
Hash Code	Google competition. Team programming competition.	register by 17th February 2020
Kick start	Google competition. **beginners** Individual coding competition. Several 3 hour rounds between Mar 22 2020 and Nov 15 2020	register between 4th Feb 2020 and 15th Nov 2020
Code Jam to I/O for Women	Google competition. **women** Single round of 150 mins on February 15, 2020	register by 15th February 2020
Kaggle	Data science competitions. Teams or individual.	year round competitions
Microsoft Imagine Cup	**students** Max 3 members per team (can compete individually).	register by Jan 2020
ICPC	**students** ACM International Collegiate Programming Contest.	varies by region

Kaggle

11 Active Competitions



Deepfake Detection Challenge

Identify videos with facial or voice manipulations

Featured · Code Competition · 2 months to go · 📁 video data, online video

\$1,000,000
1,457 teams



Google QUEST Q&A Labeling

Improving automated understanding of complex question answer content

Featured · Code Competition · 8 days to go · 📁 text data, nlp

\$25,000
1,422 teams



Real or Not? NLP with Disaster Tweets

Predict which Tweets are about real disasters and which ones are not

Getting Started · Ongoing · 📁 text data, binary classification

\$10,000
2,352 teams

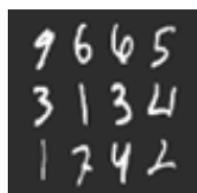


Bengali.AI Handwritten Grapheme Classification

Classify the components of handwritten Bengali

Research · Code Competition · a month to go · 📁 multiclass classification, image data

\$10,000
1,012 teams



Digit Recognizer

Learn computer vision fundamentals with the famous MNIST data

Getting Started · Ongoing · 📁 tabular data, multiclass classification, image data, object identification

Knowledge
2,342 teams

Internships



<https://www.linkedin.com/pulse/big-tech-coding-interview-simple-guide-for-success-frances-cooper/>

My experience

The Amazon logo, featuring the word "amazon" in a lowercase, sans-serif font. A white curved arrow is positioned below the letters "a" and "z", pointing from the "a" to the "z".

My experience

Google

Coding question

Example

Surviving the (technical) interview

Don't stress if
it goes badly

you get
hints!

1. Understand the problem

- Ask problem specific questions
- Ask what to return
- Talk about edge cases

2. Solving

- Talk through your thinking
- State naive solution and runtime
- Get a better solution and runtime

3. Coding

- Be methodical
- Leave comments / say you will go back to things
- Prioritise finishing the coding over quality of code

4. Finishing

- Say you are debugging and debug
- Say you are testing and test with example
- If time at end - tidy code up

Scholarships

Scholarships

- Various opportunities
- Some give prizes, money, travel, conferences, prestige
- Applications: try to highlight unique things you have done, leadership, helping others, creating a group, legacy, STEM
- My experience...



Scholarships

Scholarship	Eligibility	Dates	Prizes
Google Europe Students with Disabilities	**students with disabilities**	applications open Autumn 2020	€7000
WTM Scholarship for Computer Science & Gaming	**female students**	3 regions with different dates. Europe: Autumn 2020	Europe: €7000 + 2 day retreat
WTM Irish University	**female students, 1st / 2nd year undergrad at Irish Uni**		€5000 annually
Facebook Fellowship Program	CS PhD students	Year round	tuition paid + \$37k + travel support + visit to Facebook
Grace Hopper Celebration Scholarships from Google, Facebook, Microsoft etc	**female students**	Conference is Sept 29th - Oct 2nd 2020	Expenses
Software Sustainability Institute Fellowship	**All levels of academia / research**	applications by October 29th, 2019	£3000 to spend in the area of software practices in research

Scholarships

Scholarship	Eligibility	Dates
Graduate School travel mobility scholarships	<ul style="list-style-type: none">- To collaborate internationally- To work in renowned laboratories- To engage in field work which is not funded by your School	24th Jan 2020
Google Conference and Travel Scholarships	Specific conferences lists on website. Differing eligibility per region (e.g. **Europe - must be a woman in technology**).	Year round

Miscellaneous

Miscellaneous

Opportunity	Description	Dates
Give seminars about your work / something you have read	If undergrad - contact seminar organiser in your area / set up a study group	year round
3 minute thesis	**PhD students** Competition to present your research work to a non-technical audience in 3 minutes.	register by 21 February 2020
Pint of Science	Speak about your research to people in a pub.	11th - 13th May 2020
Inside look at Google Munich	**students** Take an expenses paid trip to a Google office (2019 in Munich) and speak to Google engineers.	June in 2019 so probably similar this year
Amazon Early Insights	**women early undergraduate** 3 day event at an Amazon office (Edinburgh or London).	15th March 2020
British Federation of Women Graduates	**female phd students**	applications by February 22nd 2020
Google Summer of Code	**students with some programming experience** “matches students up with open source, free software and technology-related organizations to write code and get paid to do it”	applications 16th - 31st March 2020

My experience 2017


UofG Matchmaker University of Glasgow

Watch later Share

MT THREE MINUTE THESIS

College of Science and Engineering

Matchmaker
How did we live without matching?



1 MINUTE THESIS
ac.uk/threeminutethesis

Frances Cooper
Matchmaker

MORE VIDEOS

0:09 / 2:43

CC HD YouTube

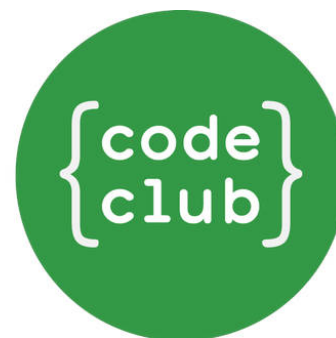
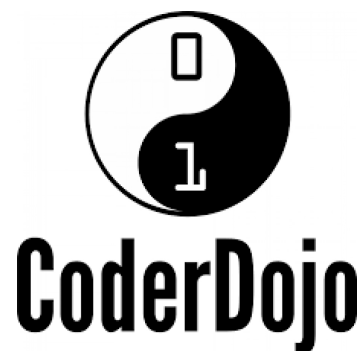
Miscellaneous

Opportunity	Description	Dates
Google STEP internship	**1st & 2nd year undergrads** Internship specifically for early undergrads.	Autumn 2020
University lectures	Go to any lectures you like in the Uni (polite to ask the lecturer first)	Term time
Coursera	Online courses about many different subjects.	Anytime
Udacity (scholarships)	Online courses about many different subjects.	Scholarships announced regularly

Community

Community

- Becoming a student representative
 - For your year group (undergrads and masters), for PhD students
- Committees: Athena swan (working towards gender equality), graduate school board
- Volunteer (code club, coder dojo, code first girls), or doing something unrelated to your degree



Starting a group

- Start a group / seminar series / blog / website on something that you are passionate about.
E.g. **GWⁱCS**
 - If its free to run, don't ask permission
 - If people offer to help, accept it! GWiCS wouldn't have lasted without the help of many people



Unexpected opportunities on your Undergrad, Masters and PhD

(For anyone who likes coding)



Glasgow Women in Computing Science

Monday 2nd March 1pm

Room 422, School of Computing Science



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Travel



Scholarships



Coding competitions



Miscellaneous opportunities



Internships



Community