

SOPHIE THOMPSON

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EDUCATION

2018 - 2022	Imperial College London <ul style="list-style-type: none">• First Class	MEng Computing
2011 - 2018	Westcliff High School for Girls <ul style="list-style-type: none">• A Level: A*A*A*A* in Maths, Further Maths, Chemistry, and Physics	Sixth Form

WORK EXPERIENCE

2022-Present	Bloomberg	Software Engineer
	After a 3 month induction, I joined the Mobile News & Alerts team. This team works on the Bloomberg Professional app, both iOS and Android, using Swift , Java and Kotlin . I've also worked on our backend servers which are written in both Python and C++ . During my time on the team I have introduced a swipe mechanism, search bar and sorting feature.	
	From the outset I have involved myself in the community, volunteering as a mentor for the BWIT Insight Week and hosting a student for a work experience week.	
2021	Facebook	Software Engineer Intern
	During a 5 month placement I worked in the Release Engineering team on an individual project. In Python , using Click , I worked on a command line tool that helps engineers debug and maintain the repository. The purpose of this tool was to reduce the reliance on internal infrastructure so during outages the tool would still be available to the engineers.	

PROJECTS

2022	Facial Mesh Reconstruction from Multi-View Depth Data	C++, Python
	During my final year project I worked upon existing software, COLMAP , that used the structure from motion algorithm to build a mesh. In this project I developed the software to take advantage of additional available information from the multi view depth data. Where the original program struggled to create even a partial mesh, failing to produce a mesh for the majority. At the end of this project my adapted program succeeded in making full facial meshes for all data subjects.	
2021	GolfCoach	Swift
	In a group of 6 we developed a mobile app for iPhones that would record the user's golf swing and give feedback based on the analysis. We used Optical Flow to track the movement of the golf club and Apple's ARKit to get a 3D skeleton model. The video would playback pausing at key stages of the swing using the skeleton to recognise those positions and give feedback on the speed of motion and the angle of the joints.	
2020	Unicompare	Python
	In a group of 4 we developed a webapp for prospective university students to compare universities in both social and academic aspects. The webapp was mainly Python using Django and some HTML , CSS and Javascript . In the webapp the user gets directed to a quiz based off of this the user is given a shortlist of 5 universities. The webapp was developed through numerous design iterations with multiple stakeholders. In this project we used PostgreSQL for the database and Heroku for deployment.	
2020	WACC Compiler	Java, ARM
	A compiler for the simplified language WACC. This compiler was written in Java and is capable of translating WACC into ARM assembly code that can then run, giving the desired output of the program. We expanded the basic compiler to include overloading variables and functions (based on parameters and/or return types). Optimisations include constant evaluation and control flow.	

SKILLS & INTERESTS

Programming	Comfortable with Python, Java and Swift. Some experience with C++, Haskell, C# and C. Comfortable with tools such as version control and CI/CD.
Web Based	Comfortable with HTML, CSS, TypeScript and some experience in JavaScript.
Ten-Pin Bowling	Have competed internationally both independently and as part of Team England. In 2018 became double European Champion collecting 2 golds and a silver in the European Youth Championships in Denmark.