

Youssef Moawad

Computing Science PhD Candidate and Software Developer
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PERSONAL STATEMENT

I have about 14 years of experience in programming, including 7 years in app development, during which I accumulated plenty of experience in multiple programming languages and platforms. I started releasing apps to the App Store in 2013 and since then I have published nearly 20. You can have a look at everything I have built over the past few years at my personal website devdude.me or on [my GitHub](#). I am passionate about using technology and CS to help people around the world.

ACADEMIA

Currently pursuing a *PhD in Computing Science* at the *University of Glasgow*. My research is focused on the acceleration of quantum computing simulators using FPGAs.

BSc Computing Science and Physics, University of Glasgow, 2015-2019

I graduated my BSc in Computing Science and Physics with **Honours of the First Class** in June 2019. I was also awarded the **Joint Honours Class Prize** in my final year.

In the fourth year of my undergraduate studies, I undertook several computing and physics courses; notable computing courses include: *Functional Programming*, *Theory of Computation*, *Advanced Systems Programming*, and *Programming Languages*. I also undertook an *Individual Project* in CS about Accelerating Quantum Computing Simulators, on which I wrote my final year dissertation, which reached the **Hall of Fame** for the following year.

TECHNICAL SKILLS

- **Programming:**
 - Experienced: C/C++, Swift, Objective-C, JavaScript/HTML5/CSS, SQL, Java, Python.
 - Intermediate: Haskell, Rust, C#, Java, PHP, BlueSpec SystemVerilog.
 - Beginner: Go, VHDL, Verilog.
- **Technologies:**
 - Experienced: Xcode, SwiftUI, React Native, Node.js, Express.js, Svelte, Sapper, Redux, Git, Numpy, MySQL, macOS, iOS, Linux.
 - Intermediate: Intel FPGA SDK, Xilinx SDAccel, Django, SASS, React.
 - Beginner: Wordpress, Stripe, Apache, Jenkins, Unity, MongoDB.

WORK EXPERIENCE

Web Developer - University of Glasgow (November 2019-May 2020)

- Joined a team working on a funded learning and teaching project in the engineering department at the university, which aimed to develop better customised experiences for lab students in the department.
- I was mainly charged with developing the web app and infrastructure for the project.

FPGA Prototyping Intern - The MathWorks Ltd. (June-September 2019)

- Joined the SoC Prototyping team at MathWorks to work on a project involving the development of a system to access SoC boards over a network.
- Contributed to the team by developing internal developer tools, making it easier to run tests, access devices, etc.

Software Developer at Channel Shift Solutions Ltd. (June 2018-May 2019)

- Joined the development team at Channel Shift Solutions to further their software development operations and help them expand to new markets.
- Worked on a substantial React Native project to bring a series of websites to cross-platform apps.

Lab Demonstrator at the University of Glasgow (September-December 2018)

- Tutored first year undergrad Python students in the Department of Computing Science.

Game Developer/User Interface Design Intern at Synaptic Hub Ltd. (July-September 2017)

- I joined the development team at Synaptic Hub Ltd. during the summer of 2017 to work on the alpha version of *DYsLexiMeter*, an iPad game that is used for the diagnosis of dyslexia in children.
- Gained experience working in a professional software development environment and in software development paradigms such as Scrum and the Agile methodology.
- I was involved in the initial design and requirements capture of the game and then in the earliest stages of its implementation.

EXTRACURRICULAR ACTIVITIES

- **Released over 20 apps and games to the Apple App Store**, the most notable of which is [Matrix Master 2](#), which lets users perform various matrix calculations, including eigenvectors/eigenvalues and matrix powers, for matrices of flexible sizes. You can find links to these projects at [devdude.me/projects](#).
- **Built the website:** [devdude.me](#) where anyone can read about the projects I worked on and the ones I am currently working on. It also has an integrated blog ([devdude.me/blog](#)) where I write about technologies I use in development, particle physics and other things.
- Became President of the board of Glasgow University Tech Society in 2018/19 and organised *Do You Have The GUTS 2018*, a brand new event called *StartUp Factory*, and many more. I carried on being president the following year.
- Became a member of the committee of Glasgow University Tech Society in 2017/18 and helped organise *Hacker Olympics*, *Do You Have The GUTS 2017*, *CDX 2018* and other events hosted by the society.
- Attended *Cyber Defense Exercise Hackathon 2017* hosted by Glasgow University Tech Society (*GUTS*) and achieved second place with my team.
- Attended *CERN Spring Campus 2017* hosted by the CS department at Glasgow University.