

Marcus Melconian | Design Engineer

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Design Engineering Masters student (MEng) at Imperial College London, passionate about driving the future of XR, AI, and IoT sectors. Consistently ranked on the faculty Dean's List (top 10% of class).

Education

Imperial College London | Design Engineering (MEng) *(September 2017 - June 2021)*
1st Class Honours - Years (1,2,3)

Awards:

- Head of School Prize (2018-2019): Awarded for achieving the highest mean grade (GPA) on the degree.
- Dean's List Honour (2018 - 2020): Consistently ranked in the top 10% of the degree class (GPA).
- DESIRE Award (2020): The most prestigious award available for project work at my university college. Awarded by faculty leaders to my Year 3 engineering project 'NTX', where we developed a future human-computer interface using haptic technologies. See my website, linked at the top of this page, for details.

Modules include: Electronics, Computing, Sensing and IoT, Robotics, Machine Learning, Management.

King's College Wimbledon *(September 2011 - June 2016)*

A-Level: Maths, Physics, Art & Design [A*AA]. AS Level: Further Maths [A].
IGCSE: [10A* 2A]. Extended Project: [A*].

Extracurricular: Combined Cadets Force (2012-2016), DofE Silver (2014), Senior Prefect (2015-2016).

Experience

Siemens Healthineers | Innovation Think Tank Fellow | *Erlangen, Germany* *(June - September 2020)*

Crafted future medical technology innovations at Siemens Healthineers Innovation Think Tank, at their global headquarters in Erlangen, Germany. Areas of work included: human-computer interaction, novel biometric sensors, patient experience, 5G interfacing, advanced therapies, healthcare robotics, medical imaging, and COVID-19. My primary individual project, based around 5G interfacing with radiology devices, also resulted in me writing an 11-page research manuscript for journal publication as well as filing an invention disclosure, both as the primary author. Work was also contributed to the global eITT 2020 exhibition, showcased to an array of industry leading professionals.

Imperial College London & Oticon | Researcher | *London, UK* *(May - June 2020)*

Worked within the Audio Experience Design (AXP) research team at Imperial College London. I conducted a solo project where I created the VR application 'Kokoro' - a platform for training and assessment of key auditory aspects: sound localisation, speech perception, and auditory proprioception, for teenage bilateral Cochlear Implant (CI) users. Developed using Unity, C#, and the HTC Vive.

ARM | IoT Services Research Intern | *Cambridge, UK* *(July - September 2019)*

Operated within the edge computing R&D team as part of the IoT Services Group. I took on a solo project creating a live demonstration combining gesture recognition (computer vision) and natural language processing, running purely on the edge. Working primarily with React.js, OpenCV, Tensorflow, Keras, and Convolutional Neural Networks. I was also offered 2 future positions following internship completion.

Globebyte | Junior Software Engineer | *London, UK* *(July - September 2018)*

Research and development of a web/mobile learning app, using Node.js, AWS, and Alexa Skills Kit.

Globebyte | Junior Engineer | *London, UK* *(December 2016 - September 2017)*

Year spent in the design and production of a VR learning tool. Working with Unity, C#, and the HTC Vive.

Skills

Coding:

JavaScript, Node.js, React.js, C#, C/C++, Python, Swift, ML libraries, Tensorflow, Keras, HTML/CSS, Linux.

Software:

VR Development, Unity, Oculus, HTC Vive, AWS, Alexa Skills Kit, ROS, Xamarin, Firebase, Realm, XCode, MATLAB, SOLIDWORKS, Fusion 360, Blender, Adobe Creative Suite, CES EduPack, Microsoft Package.

Physical:

Hardware Dev (e.g. Arduino, Pi, Circuits), Rapid Prototyping, 3D Printing, Laser Cutting, Soldering, UX/UI.