

# ARYAN ESFANDIARI

## PERSONAL INFORMATION

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LOCATION: London, United Kingdom  
CITIZENSHIP: Norwegian & British  
PHONE: +44 739 7131 703  
EMAIL: [arian88@gmail.com](mailto:arian88@gmail.com)

## EXPERIENCE

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| <i>2019 - present</i> | <p><b>Huawei Technologies R&amp;D UK</b> – Cambridge, United Kingdom<br/>Senior Artificial Intelligence Researcher and Engineer</p> <p>Cambridge and London Research Centre (2012 Laboratories) – Computer Vision.<br/>Research on various deep learning advancements such as supervised and self-supervised learning with novel neural network architectures including but not limited to convolutional neural networks, transformers, autoencoders, generative, adversarial and recurrent neural networks. During my employment, I have had the opportunity to study and analyse state-of-the-art deep learning and computer vision advances in addition to development of innovative approaches. I was honoured to be a part of numerous leading research, university collaborations and had the privilege of attending several international conferences.</p> |
| <i>2016 - 2019</i>    | <p><b>Advanced Micro Devices</b> – Edinburgh, United Kingdom<br/>Senior Machine Learning Design Engineer</p> <p>Implementation of efficient deep convolutional neural networks with Pytorch and Tensorflow with respect to the embedded hardware and artificial intelligence accelerators. I was also responsible for model optimisation, including compression and quantization based on FPGAs for low-latency computations and inference in data centres and cloud computing services such as Amazon AWS. During my time with AMD, I had the opportunity to be a part of several deep learning frameworks and libraries development such as Xilinx Vitis™ and to investigate into a variety of System-on-Chip architectures for artificial intelligence including dedicated AI Engines and advanced DSPs.</p>   |
| <i>2014 - 2016</i>    | <p><b>University of Oslo</b> – Oslo, Norway<br/>Research Assistant</p> <p>Teach undergraduate and postgraduate modules, including Introduction to Robotics, Computer Vision and Advanced Artificial Intelligence. Design of course materials, curriculum and syllabus. Technical supervisor of student's dissertation and publication. Final examiner, grader and assignment marker.</p>  |
| <i>2014</i>           | <p><b>Samsung</b> – California, United States<br/>Embedded System Engineer</p> <p>My main responsibility was to develop commercial applications for ARM microcontrollers including bootloader and firmware in C and C++. I was also involved in other fields such as circuit design, digital electronics, sensors and simulations. This opportunity shaped my academic knowledge to high-quality experiences and skills in the heart of Silicon Valley.</p>   |

## EDUCATION

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2020 -	<b>Doctor of Philosophy in MEDICAL ARTIFICIAL INTELLIGENCE, King's College</b> <b>Dissertation:</b> "Artificial Intelligence at the edge: From time-consistency and 3D human pose estimation models to neurological outcome with on-board computing" <b>School of Biomedical Engineering &amp; Imaging Sciences</b> EPSRC CDT in Smart Medical Imaging at <b>King's and Imperial College London</b> Supervisors: Dr. M. Jorge CARDOSO, Prof. Sebastien OURSELIN
2014 - 2016	<b>Master of Science in ROBOTICS AND INTELLIGENT SYSTEMS, University of Oslo</b> <b>Dissertation:</b> "High-speed neural stimulation with Artificial Neural Network approaches based on Dynamic Vision Sensor and Embedded Systems" GPA: A / A – Supervisors: Prof. Philipp Dominik HÄFLIGER, Prof. Koen Gerard VERVAEKE
2014	<b>Master of Science in ROBOTICS AND INTELLIGENT SYSTEMS, University of California, Berkeley</b> GPA: A / A – Supervisors: Prof. Ikhtlaq SIDHU, Prof. Naeem ZAFAR
2010 - 2014	<b>Bachelor of Science in ROBOTICS AND INTELLIGENT SYSTEMS, University of Oslo</b> GPA: B / A – Supervisor: Prof. Ketil RØED

## PUBLICATIONS, ACHIEVEMENTS AND AWARDS

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2020	<b>Winner of AIM at ECCV2020:</b> Ranked as 1 <sup>st</sup> place in "Advances in Image Manipulation workshop and challenges on image and video manipulation" for both fidelity and perceptual tracks of extreme spatiotemporal video super-resolution.
2019	<b>Future Star of Huawei:</b> Recognised as one of the most enthusiastic, passionate and dedicated new starters for novel and innovative deep learning research in addition to outstanding teamwork.
2018	<b>Recognition award of AMD:</b> Awarded for distinguished research and development of hardware optimised and efficient deep convolutional neural networks that led to multiple in-house and commercial patents.
2015 - 2016	<b>The Best Student Project Award:</b> Achieved the best student project of University of Oslo. This was related to my recent projects including "Medical Robot for Healthcare", "Modular Walking Robot" and "Pool Detection and Path Identification with Computer Vision approaches in OpenCV".

## LANGUAGES

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<b>English:</b>	FLUENT (IELTS ACADEMIC - C2 PROFICIENT)
<b>Norwegian:</b>	NATIVE
<b>Persian:</b>	NATIVE

## COMPUTER SKILLS

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<b>Frameworks:</b>	PYTORCH, TENSORFLOW, KERAS, MONAI, OPEN-CV, SCIKIT-LEARN and NUMPY
<b>Languages:</b>	PYTHON, MATLAB, C/C++, JAVA, VHDL, SYSTEMVERILOG and $\text{\LaTeX}$
<b>Technologies:</b>	ROBOTICS, COMPUTER VISION, SIGNAL PROCESSING, LINUX, DOCKER, GITHUB, DIGITAL ELECTRONICS, EMBEDDED SYSTEMS, FPGAs and COMPUTER-AIDED DESIGN