

Arslan Chaudhry

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Education	University of Oxford , United Kingdom Oct 2016 - Present <i>Doctor of Philosophy (DPhil) in Machine Learning and Computer Vision</i> <ul style="list-style-type: none">• <i>Advisor:</i> Philip H.S. Torr• <i>Focus:</i> I am working in <i>Torr Vision Group (TVG)</i> as a Doctoral Researcher focusing on the fusion of Computer Vision and Machine Learning.• Rhodes Scholar (2016) University of Engineering & Technology , Lahore, Pakistan August 2013 <i>Bachelor of Science in Electrical Engineering</i> <ul style="list-style-type: none">• <i>CGPA:</i> 3.946/4.0 (Graduated at the TOP of 400+ students graduating class)• Three Gold Medals for scoring the highest <i>CGPA</i>• <i>Thesis:</i> Load Balancing of Compute Intensive Applications on Beowulf Clusters.	
Publications	Riemannian Walk for Incremental Learning: Understanding Forgetting and Intransigence, Submitted to CVPR, 2018 Discovering Class-Specific Pixels for Weakly-Supervised Semantic Segmentation, In the Proceedings of the British Machine Vision Conference (BMVC), 2017. (oral)	
Experience	Doctoral Researcher , University of Oxford Oct 2016 - Present Working in Torr Vision Group to develop a continual learning scene understanding system. Particularly, studying weakly-supervised segmentation systems and life-long learning in neural networks. Sr. Software Development Engineer , Mentor Graphics Aug 2015 - Aug 2016 Developed Virtual Machine Monitor (MMU) for <i>Intel</i> SOC's. Exploited <i>Intel's VT-x</i> and <i>VT-d</i> technologies. Developed <i>Extended Page Table (EPT)</i> based memory virtualization model. Developed <i>virt-IO</i> based networking driver for network sharing among multiple guests. Senior Software Development Engineer , Mentor Graphics Jul 2014 - Jul 2015 Ported <i>Xilinx's zynq-zc702</i> , <i>FreeScale's i.MX6</i> and <i>TI's Jacinto6</i> on Mentor Embedded Hypervisor (MEHV). Exploited <i>ARM TrustZone</i> to implement <i>Trusted Execution Environment (TEE)</i> in the VMM. Developed <i>virt-IO</i> based <i>console</i> and <i>net</i> drivers. Software Development Engineer , Mentor Graphics June 2013 - July 2014 Worked on Mentor's virtualization solution, <i>MEHV</i> , for <i>ARM</i> SOC's. Developed <i>Profiling</i> solution, <i>DDC</i> tool - which can extract multiple device tree blobs from a parent device tree based on <i>VM</i> definitions - Eclipse P2 based packaging solution and build/configuration system of <i>MEHV</i> . Internee , Al-Khawarizmi Institute of Computer Science April 2013 - May 2013 Worked on the development of Urdu Search Engine using Elastic <i>MapReduce</i> technique. Exploited the capabilities of <i>Hadoop</i> Distributed File System (DFS) and MapReduce	

paradigm to build an autonomous cluster. Setup an eight-node cluster, and developed an algorithm for top-level domain extraction from *Amazon's* web crawl.

Internee, Mentor Graphics **June 2012 - September 2012**
Worked on Real Time Operating Systems (*Nucleus + Linux*) and Open Source Build Systems (*Yocto, Buildroot and Open Embedded*). Verified *Mentor Embedded Linux (MEL)* on hardware platforms (*i.MX233 and Omap Pandaboard*), and developed device drivers for character devices on Linux platform.

Teaching Lab Demonstrator, **Software Engineering**, Hilary 2017, University of Oxford

Teaching Assistant, **Operating Systems**, Spring 2013, University of Engineering and Technology, Lahore

Computer Skills Languages: C, C++, Python, numpy, Shell Scripting, SQL, PHP, Eclipse P2 Development, Verilog (HDL), Assembly language (ARM, x86, MIPS and 80c51), GNU/Linux Programming, MATLAB, L^AT_EX

Programming Paradigms: CUDA Programming, System Programming, Linux Kernel and Driver Development, Parallel Programming, Application Level Programming, Agile Sprint Development

Machine Learning Frameworks: Tensorflow, Keras

Advanced MPS Modules: ARM TrustZone, Intel's VT-d and VT-x

Leadership Activities **President, IEEE UET Lahore** **June 2012 - June 2013**
As president, I was responsible for the overall performance of the chapter. Presided all technical, budget and alumni committee meetings. Represented the society at the *Pakistan Student Congress 2012*. The chapter won the *Best Student Branch of Lahore Section* award during my tenure.

Honours Rhodes Scholar, **2016**
Performance Excellence Award, Virtualization Team, Mentor Graphics ESD, **2015**
Topper and Gold medalist of Electrical Engineering Department, UET Lahore, **2013**
Deans Honors List, UET Lahore, **2009-2013**
Nominated for IEEE Region 10 executive comity by IEEE Lahore Section, **2013**
Obtained third position in BLOSSOM held by MIT officials at PYF, **2012**
Winner of Race to Innovation in Pakistan Student Congress, **2012**
Obtained third position in Pakistan in IEEE Xtreme Programming Competition, **2012**
PCS scholarship recipient worth PKR 113980, **2007-2009**

Side Activities Mountains Explorer
Sports Freak
Follower of the Indian sub-continent music and semi-pop
Mentor Graphics, Lahore office Foosball, Pool champion and Cricket league winner

Referees

Philip Torr

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