

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 continual learning in visual scene understanding agents. Particular emphasis is on learning from weak cues and solving catastrophic forgetting in neural networks• 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	Arslan Chaudhry , Marc'Aurelio Ranzato, Marcus Rohrbach, Mohamed Elhoseiny; <i>Efficient Lifelong Learning with A-GEM</i> , Under submission to International Conference on Learning Representations (ICLR), 2019. Arslan Chaudhry , Puneet K. Dokania, Thalaiyasingam Ajanthan, Philip Torr; <i>Riemannian Walk for Incremental Learning: Understanding Forgetting and Intransigence</i> , In the Proceedings of the European Conference on Computer Vision (ECCV), 2018. Arslan Chaudhry , Puneet K. Dokania, Philip Torr; <i>Discovering Class-Specific Pixels for Weakly-Supervised Semantic Segmentation</i> , In the Proceedings of the British Machine Vision Conference (BMVC), 2017. (oral)	
Graduate Internships	Facebook AI Research (FAIR)	Jun 2018 - September 2018 <ul style="list-style-type: none">• <i>Mentors:</i> Marc'aurelio Ranzato, Marcus Rohrbach, Mohamed Elhoseiny,• <i>Project:</i> Efficient Lifelong Learning.
Professional Experience	Visiting Researcher , Facebook AI Research (FAIR) Forward transfer in Lifelong Learning models.	Oct 2018 - Dec 2018 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. Sr. 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 Embed-

ded Hypervisor (MEHV). Exploited *ARM TrustZone* to implement *Trusted Execution Environment (TEE)* in the VMM. Developed *virt-IO* based *console* and *net* drivers.

Software Development Engineer, Mentor Graphics June 2013 - July 2014

Worked on Mentor's virtualization solution, *MEHV*, for *ARM* SOCs. Developed *Profiling* solution, *DDC* tool - which can extract multiple device tree blobs from a parent device tree based on *VM* definitions - Eclipse P2 based packaging solution and build/configuration system of *MEHV*.

Teaching

Undergraduate Tutorials, **Machine Learning**, Trinity 2018, Stanford House

Graduate Teaching Assistant, **Networking**, Trinity 2018, University of Oxford

Graduate Teaching Assistant, **Operating Systems**, Hilary 2018, University of Oxford

Lab Demonstrator, **Software Engineering**, Hilary 2018, University of Oxford

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

Teaching Assistant, **Operating Systems**, Spring 2013, UET, 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

Professor
Department of Engineering Science
University of Oxford, United Kingdom
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Puneet Dokania

Post-Doctoral Researcher
Department of Engineering Science
University of Oxford, United Kingdom
email: puneetkdokania@gmail.com