

Arslan Chaudhry

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United Kingdom <http://www.robots.ox.ac.uk/~arslan/>

Education **PhD, University of Oxford, United Kingdom** **Oct 2016 - Present**

- **Area:** Machine Learning and Computer Vision
- **Advisor:** Philip H.S. Torr
- **Thesis:** Continual Learning in Neural Networks
- **Rhodes Scholar (2016)**

BSc, University of Engineering & Technology, Lahore, Pakistan **August 2013**

- **Area:** Electrical and Computer Engineering
 - **CGPA:** 3.95/4.0 (Highest honors)
 - **Thesis:** Load balancing of compute intensive applications on Beowulf clusters
 - Multiple gold medals for graduating at the top of 400+ students graduating class
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Professional Experience **Research Intern, Google Research** **June 2020 - September 2020**

- *Mentors:* Srikumar Ramalingam, Sanjiv Kumar

Research Intern, Facebook AI **June 2019 - September 2019**

- *Mentors:* Albert Gordo, David Lopez-Paz
- *Project:* Experience Replay for Continual Learning

Visiting Researcher, Facebook AI Research (FAIR) **June 2018 - February 2019**

- *Mentors:* Marc'aurelio Ranzato, Marcus Rohrbach, Mohamed Elhoseiny
- *Project:* Efficient Lifelong Learning.

Sr. Software Development Engineer, Mentor Graphics **June 2013 - Aug 2016**

- Developed a Virtual Machine Monitor (VMM)/ Hypervisor for ARM and Intel platforms. Lead the development of:
 - Secured (using TrustZone – ARM) and virtualized (VT-x/ VT-d – Intel) Memory Management Unit (MMU)
 - Networking and console drivers based on virt-IO
 - Profiling and visualization toolkit
 - Build/ configure and packaging system
 - Received multiple performance excellence awards

Publications

1. **Arslan Chaudhry**, Albert Gordo, David Lopez-Paz, Puneet K. Dokania, Philip H. S. Torr, *Using Hindsight to Anchor Past Knowledge in Continual Learning*, International Conference on Machine Learning (ICML), 2020 (Under Submission)
 2. **Arslan Chaudhry**, Marcus Rohrbach, Mohamed Elhoseiny, Thalaiyasingam Ajanthan, Puneet K. Dokania, Philip H.S. Torr, Marc'Aurelio Ranzato; *Continual Learning with Tiny Episodic Memories*, International Conference on Machine Learning (ICML), MTLRL Workshop, 2019
 3. **Arslan Chaudhry**, Marc'Aurelio Ranzato, Marcus Rohrbach, Mohamed Elhoseiny; *Efficient Lifelong Learning with A-GEM*, International Conference on Learning Representations (ICLR), 2019
 4. **Arslan Chaudhry**, Puneet K. Dokania, Thalaiyasingam Ajanthan, Philip Torr; *Riemannian Walk for Incremental Learning: Understanding Forgetting and Intertransigence*, In the Proceedings of the European Conference on Computer Vision (ECCV), 2018
 5. **Arslan Chaudhry**, Puneet K. Dokania, Philip Torr; *Discovering Class-Specific Pixels for Weakly-Supervised Semantic Segmentation*, In the Proceedings of the British Machine Vision Conference (BMVC), 2017 (oral)
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Teaching

Tutorials, **Machine Learning**, Hilary 2020, Trinity 2018, Stanford House
Tutorials, **Networking**, Trinity [2018, 2019] University of Oxford
Tutorials, **Operating Systems**, Hilary [2018, 2019], University of Oxford
Lab, **Software Engineering**, Hilary [2017, 2018, 2019], University of Oxford
Teaching Assistant, **Operating Systems**, Spring 2013, UET, Lahore

Computing Expertise

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, \LaTeX
Programming Paradigms:	CUDA Programming, System Programming, Linux Kernel and Driver Development, Parallel Programming, Application Level Programming, Agile Sprint Development
Machine Learning Frameworks:	Tensorflow, Pytorch, 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.

Awards	Amazon Research Award, 2019-2020
Grants	NeurIPS Travel Award, 2018
Fellowships	ICLR Travel Award, 2019
	Murray Speight Grant, Rhodes House, 2018
	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

Service	Reviewer for ICML [2019-2020], NeurIPS [2019-2020], CVPR [2019-2020], ICCV [2019], ECCV[2020]
	Reviewer for IEEE Transaction on Multimedia