Arslan Chaudhry

Contact Information

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Experience

Research Scientist, Google DeepMind — April 2021 - Present

- *Team*: Frontier AI Unit
- *Focus Areas*: Memory-based architectures. How LLMs learn. Thinking. Post-training (multimodal finetuning and RLHF), Factuality and Uncertainty of LLMs, Continual-, Meta-, Auto-ML
- *Applied Research to*: Astra, YouTutor, Lookout

Research Internships

- **Google Research** — June 2020 - September 2020
  - *Hosts*: Srikumar Ramalingam, Andreas Veit
  - *Project*: Mixup regularization for dataset efficiency
- **Facebook AI** — June 2019 - September 2019
  - *Hosts*: Albert Gordo, David Lopez-Paz
  - *Project*: Experience Replay for Continual Learning
- **Facebook AI Research** — June 2018 - February 2019
  - *Hosts*: Mohamed Elhoseiny, Marcus Rohrbach, Marc'aurelio Ranzato
  - *Project*: Efficient Lifelong Learning.

Software Developer, Mentor Graphics — June 2013 - Aug 2016

- Developed a Virtual Machine Monitor (VMM)/ Hypervisor for ARM and Intel platforms.

Education

PhD, **University of Oxford**, United Kingdom — Oct 2016 - December 2020

- **Rhodes Scholarship**
- **Area**: Machine Learning and Computer Vision
- **Advisor**: Philip H.S. Torr
- **Thesis**: Continual Learning for Efficient Machine Learning

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BSc, **University of Engineering & Technology**, Lahore   **Sep 2009 - Aug 2013**

- **Area**: Electrical Engineering
- **CGPA**: 3.95/4.0 (Rank: 1/ 400+; Medalist)
- **Thesis**: Load balancing of compute intensive applications on Beowulf clusters

Publications	Google Scholar [https://scholar.google.co.uk/citations?user=FO8vjQMAAAAJ&hl]

Teaching	Tutorials, **Machine Learning**, Hilary 2020, Trinity 2018, Stanford House (Oxford)
	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

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Talks

- **CVPR'23**, On Forward Transfer in ML Development Cycle, June 2023.
- **KAUST**, Continual Learning in Deep Neural Networks, July 2020
- **Google Research**, Continual Learning in Deep Neural Networks, July 2020
- **Google DeepMind**, Continual Learning in Deep Neural Networks, April 2020
- **UET Lahore**, Machine Learning Introduction, December 2017

Computing Expertise	**Languages:**	Python, C/ C++
	Programming Paradigms:	Linux Kernel and Driver Development, Parallel Programming, CUDA Programming
	Machine Learning Frameworks:	Jax, Tensorflow
	Embedded Systems:	ARM TrustZone, Intel's VT-d and VT-x

Awards Grants Fellowships	Amazon Research Award, **2019-2020**
	NeurIPS Travel Award, **2019**
	ICLR Travel Award, **2018**
	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 [19-24], NeurIPS [19-22], ICLR [21-22], AISTATS[22], CVPR [19-20], ECCV[20], ICCV [19], CoLLas [22-24]
- Reviewer for TPAMI, JMLR, IEEE Transaction on Multimedia
- Organizer of several workshops at NeurIPS, ICML and ICLR