Noshaba Cheema

PhD Candidate in Animation, Cosplayer & Dancer

🌐 https://www.mpi-inf.mpg.de/~ncheema/

@ noshaba.cheema@dfki.de

@ ncheema@mpi-inf.mpg.de

About Me

Hey! I'm a Ph.D. candidate in computer science, delving deep into the realms of animation and gaming with Deep Learning. Besides my research, I have a passion for cosplay and acrobatics. Recently, I have also delved into making electronic music.

Languages

🇩🇪	German	● ● ● ● ●
🇬🇧	English	● ● ● ● ●
🇮🇳	Hindi/Urdu	● ● ● ● ○

Hobbies

- Acrobatics & Dance
- Cosplay & Live-Action Role Play
- Drawing & Painting
- 3D Modeling & Videography
- Gaming & Coding

Professional Experience

since 2019	**Ph.D. Candidate**	Max-Planck Institute for Informatics
	Developing deep reinforcement learning approaches for motion synthesis in 3D character animation	
since 2017	**AI Researcher**	DFKI GmbH
	Developing deep learning-based approaches for motion analysis and synthesis	
2015 – 2017	**AI Research Assistant**	University of Bremen
	Simulation of peripheral vision using deep learning	

Selected Publications

2023	**Discovering Fatigued Movements for Virtual Character Animation**
	Cheema, N., Xu, R., Kim, N.-H., Hämäläinen, P., Golyanik, V., Habermann, M., Theobalt, C., Slusallek, P.
	ACM SIGGRAPH Asia 2023 Conference Papers
2021	**Synthesis of Compositional Animations from Textual Descriptions**
	Ghosh, A., Cheema, N., Oguz, C., Theobalt, C., Slusallek, P.
	Proc. International Conference on Computer Vision (ICCV) 2021.
2020	**Predicting Mid-Air Interaction Movements and Fatigue Using Deep Reinforcement Learning**
	Cheema, N., Frey-Law, L., Naderi, K., Lehtinen, J., Slusallek, P., Hämäläinen, P.
	Telekom Women in STEM Award (AI)
	Proc. Conference on Human Factors in Computing Systems (CHI) 2020
2019	**Fine-Grained Semantic Segmentation of Motion Capture Data using Dilated Temporal Fully-Convolutional Networks**
	Cheema, N., Hosseini, S.*, Sprenger, J., Herrmann, E., Du, H., Fischer, K. and Slusallek, P.*
	Best Poster Award at SCA 2018
	Eurographics 2019

Complete list on Google Scholar or Homepage

Talks & Interviews

2024/12	Invited Talk in the "Women in Computer Graphics" Panel at SIGGRAPH Asia 2024
2023/06	Invited Talk in the "Women in Computer Graphics" Panel at High Performance Graphics 2023
2021/10	Invited Talk at the Equal Esports Festival 2021 on "How to Combine Art and Tech"

Scholarships, Awards & Grants

2022/23	**Miss Germany Top 40**	Miss Germany Studios
	Acceptance Rate: 0.25%	
2021	**EIC Pathfinder Grant "Carousel+"**	Horizon 2020
	Acceptance Rate: 4%, Worth: 3.6 Mio. €	
2020	**Women in STEM Award – Category: AI**	Telekom GmbH
	Acceptance Rate: 0.5%	
2018	**Best Poster Award**	Symposium on Computer Animation
	Acceptance Rate: 15%	
since 2016	**Max-Planck Fellowship**	Max-Planck Institute for Informatics
	Acceptance Rate: 3%, Worth: 160K €	
2012 – '16	**Germany Scholarship (Deutschlandstipendium)**	Hochschule Bremen
	Acceptance Rate: 3%, Worth: 12K €	

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Coding

 Python

 # C#

 + C/C++

 Java

Design

 Adobe Photoshop

 Adobe Illustrator

 Adobe Premiere Pro

 Vegas Pro

Social Networks

 i_noshnosh

 i_noshnosh

 noshaba

 noshaba

 i-pixelkitty

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Education

since 2019	**Ph.D. Candidate in Computer Science**	Saarland University
	Focus: *"Discovery of Novel Movements for Character Animation using Deep Reinforcement Learning"*	
	Visiting Student at Aalto University, Finland	
2016 – 2019	**M.Sc. in Computer Science** ($\varnothing, 1.3/3.8$)	Saarland University
	Thesis: *"In Silico User Testing for Mid-Air Interactions with Deep Reinforcement Learning"*	
	Visiting Student at Aalto University, Finland	
2016 – 2019	**M.Sc. in Visual Computing** ($\varnothing, 1.4/3.7$)	Saarland University
	Thesis: "Fine-Grained Semantic Segmentation of Motion Capture Data using Convolutional Neural Networks"	
2012 – 2016	**B.Sc. in Media Informatics** ($\varnothing, 1.3/3.8$)	Hochschule Bremen
	Thesis: *"Efficient Coding of Information in Neurobiologically Motivated Deep Network Architectures"*	
	Visiting Student at New York University, USA	

Teaching

Selected Thesis Supervision

2022	**Adversarial Text-to-Image Generation using Contrastive Learning**
	Priyanka Upadhyay – M.Sc. Saarland University
	Reviewers: Dr. Sunil Jaiswal, Prof. Dr. Philipp Slusallek
2021	**Synthesizing Compositional Animations from Textual Descriptions Using an RNN-based Hierarchical Two-Stream Network**
	Anindita Ghosh – M.Sc. Saarland University
	Reviewers: Prof. Dr. Christian Theobalt, Prof. Dr. Philipp Slusallek
2021	**Learning Symmetric Locomotion using a Modified Cumulative Biomechanical Reward Function for Reinforcement Learning**
	Rui Xu – M.Sc. Saarland University
	Reviewers: Prof. Dr. Perttu Hämäläinen, Prof. Dr. Philipp Slusallek

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Teaching Assistant

SS21	Game Development Technologies	Saarland University
SS19	Motion Synthesis for Virtual Characters	Saarland University
WS17	Basics of Signal Processing	Saarland University
GTC EU'17	Intermediate Courses in Deep Learning	NVIDIA DLI
SS15	Angewandte Mathematik	Hochschule Bremen
SS14	Angewandte Mathematik	Hochschule Bremen

Selected Volunteer Work

2022 – '23	External PhD Representative	Max-Planck Institut f. Informatik
2020 – '22	Diversity Co-Chair	High Performance Graphics
2019	Student Volunteer Team Lead	ACM SIGGRAPH Asia 2019
2017 – '18	Elected Member	Informatik Fachschaft
Reviewer	SIGGRAPH, CHI, NeuRIPS, IJCAI, UIST, CASA, CAVW	

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