

Liam Schoneveld

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EDUCATION	Master of Science (Artificial Intelligence) <i>Cum Laude</i> The University of Amsterdam	2015-2017
	Bachelor of Commerce (Liberal Studies) The University of Sydney	2009-2013
PROFESSIONAL EXPERIENCE	Research Lead, X-Reality, Woven by Toyota	Jul 2022-Present
	Lead research in photorealistic 3D human synthesis:	
	<ul style="list-style-type: none">• Define and execute the team's long-term research roadmap.• Pioneered methods for controllable photorealistic avatars and head reconstruction, achieving state-of-the-art results in fidelity and tracking.• Manage a team of 6 researchers/engineers, bridging the gap between SOTA research and production-ready assets.• Manage our collaborations with university partners, leading to several top-tier publications.	
	Principal AI Researcher, Powder (\$14.5m 2021 Series A)	Oct 2019-Jul 2022
	Lead development of AI-related features at Powder, from research to production:	
	<ul style="list-style-type: none">• Mentored and co-managed Powder's seven-person AI team.• Developed affective computing models for audio-visual emotion recognition, utilized for automated gaming highlight detection.• Reduced labeling requirements by 10x through self-supervised learning research.• Oversaw academic collaborations, leading to multiple publications.	
	Data Scientist, Pandascore (\$6m 2020 Series A)	Sep 2017-Oct 2019
	<ul style="list-style-type: none">• Developed, deployed and maintained several computer vision models for real-time events and stats detection in e-sports tournaments.• Implemented models leveraging CV-derived data for real-time probabilistic inference to calculate and optimize betting odds in live matches.	
	Machine Learning Intern, Scyfer (acquired by Qualcomm)	Feb-Sep 2017
	Completed my AI masters' thesis under the supervision of Taco Cohen and Max Welling whilst interning at Scyfer.	
	Data Scientist, PricewaterhouseCoopers Australia	Mar 2013-Jan 2016
	Consulted with clients (primarily transport industry) to develop and implement data science and econometric models (e.g., demand forecasting, choice modeling).	
	Software Developer, Law in Order Pty Ltd	2010-2013
	Produced electronic databases of legal evidence for Law in Order's clients. Developed and maintained a quality assurance tool that reduced error rates by 97%.	

PUBLICATIONS **Schoneveld, L.**, Chen, Z., Davoli, D., Tang, J., Terazawa, S., Nishino, K., & Nießner, M. (2025). *SHeaP: Self-Supervised Head Geometry Predictor Learned via 2D Gaussians*. ICCV 2025.

Tang, J., Davoli, D., Kirschstein, T., **Schoneveld, L.**, & Niessner, M. (2025). *GAF: Gaussian avatar reconstruction from monocular videos via multi-view diffusion*. CVPR 2025.

Qian, S., Kirschstein, T., **Schoneveld, L.**, Davoli, D., Giebenhain, S., & Nießner, M. (2024). *GaussianAvatars: Photorealistic head avatars with rigged 3D Gaussians*. CVPR 2024.

Schoneveld, L., & Othmani, A. (2021, September). *Towards a general deep feature extractor for facial expression recognition*. IEEE ICIP 2021.

Schoneveld, L., Othmani, A., & Abdelkawy, H. (2021). *Leveraging recent advances in deep learning for audio-visual emotion recognition*. Pattern Recognition Letters, 146, 1-7.

Schoneveld, L., (2017). Semi-supervised learning with generative adversarial networks (Masters' Thesis, The University of Amsterdam).

TECHNICAL SKILLS

- **Generative AI & Vision:** 3D Gaussian Splatting, Diffusion Models, GANs, NeRF, 3D Reconstruction, Neural Rendering, Affective Computing.
- **Deep Learning Frameworks:** Python, PyTorch, C++, CUDA.
- **Engineering & MLOps:** Model Quantization & Pruning (TensorRT, CoreML), MLFlow, DVC, Docker, Weights & Biases (W&B), CI/CD for ML.
- **Cloud & Compute:** GCP, AWS, Azure, Runpod, Paperspace.

ACHIEVEMENTS/ PRESENTATIONS

- Ongoing: Maintain a blog with posts on machine learning at nlml.github.io
- Ongoing: Contribute to open source projects on GitHub - e.g. Pytorch, mlflow
- 2025: Reviewer for ICCV and CVPR
- 2022: Presented at AWS Summit Paris
- 2021: Presented at poster session of IEEE ICIP
- 2018: Presented at Meetup Computer Vision Paris
- 2018: Participated in the 2018 Amsterdam Dance Event Hackathon (worked in a team to build a deep learning-based reverse image search application)
- 2015: Placed 17th out of 985 participants in Kaggle's *Facebook Recruiting IV: Human or Robot?* data science competition
- 2013: Placed 2nd out of 108 students in the *Operations Management* course at the University of Sydney
- 2010: Awarded two separate International Exchange Scholarships by the University of Sydney
- 2008: Placed 7th of 2730 students in Australian Higher School Certificate course *Software Design and Development*.