

Anita Lilla Verő

SENIOR AI RESEARCHER, SINGER, WRITER.

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Summary

I'm a senior Machine Learning researcher / developer, I sing, write articles, stories and poetry.

I have a PhD in Multimodal Natural Language Processing from the University of Cambridge.

My interests are Machine Learning, Natural Language Processing, Computer Vision with an increasing focus on Responsible AI and Interpretable AI.

My roles have involved strategy building, leading projects, mentoring/managing and supervising people. People management and strategising is a path I aim to pursue in the future as well.

(The latest CV at all times is available [here](#).)

Experience

Unitary

London (United Kingdom)

SENIOR MACHINE LEARNING RESEARCH ENGINEER, MANAGER

Apr. 2023 - Present

- Researching and developing multi-modal video understanding models. Building in house models as well as using LLMs (see [paper](#)).
- Developing the company's product/research strategy, regarding the state of AI and AI regulation.
- Visibility: Publishing papers, presenting at conferences, giving talks at events, writing blog posts.
- Managing junior member.
- Following upcoming AI regulations, visiting conferences (e.g. AIES, London AI Governance Talks, ICCV) and writing about them.

Unitary

London (United Kingdom)

MACHINE LEARNING RESEARCH ENGINEER

May. 2022 - Apr. 2023

- Researching and developing multi-modal video understanding models with a special focus on harmful content detection.

O'Neil Risk Consulting & Algorithmic Auditing (ORCAA)

USA (remote)

VOLUNTEER RESEARCHER

Feb. 2022 - Apr. 2022

- Researching systems which infer sensitive characteristics to detect social bias.

Crimson Research Institute

United Kingdom (online)

MENTOR

Sep. 2021 - May. 2022

- Mentoring an undergraduate student on an AI research project.

Private Tutoring

United Kingdom

TUTOR IN COMPUTER SCIENCE, PROOFREADING PHD APPLICATIONS

Oct - Dec 2019

Machine Learning and Real-world Data Course

Cambridge, United Kingdom

LAB DEMONSTRATOR

2017

- Part IA CST course at Computer Laboratory, University of Cambridge.

Supervisor at University of Cambridge

Cambridge, United Kingdom

CO-SUPERVISOR

2016 - 2017

- I co-supervised Christopher Davis, a Master student, on his thesis project about multimodal semantics. He got distinction and later a PhD position in our research group.

German Research Center for Artificial Intelligence (DFKI)

Saarbrücken, Germany

GUEST RESEARCHER

Jan. - March 2015

- Kognit project: Cognitive Models and Mixed Reality for Dementia Patients.
- Image-based representation of phrases towards a goal-oriented, symbol-based dialogue system.

Neural Information Processing Group

Budapest, Hungary

RESEARCHER

2012 - 2015

- Project leader and developer. Organised experiments with human participants with special needs.
- Natural Language Generation from pictorial symbols supporting Augmentative and Alternative Communication.
- Neural network model for fast estimation of structured sparse code.
- Semantic grounding in a 3D virtual environment.
- Sentiment analysis from linguistic and multimodal features.
- MediaWiki collaborative content management system in the EuRoSurge (European Robotic Surgery) Project.

MorphoLogic

R&D INTERN IN NATURAL LANGUAGE PROCESSING

- Information Retrieval using the WordNet ontology in C++ programming language.

Budapest, Hungary

Jun. - Aug. 2010

Education

University of Cambridge

PHD IN MACHINE LEARNING (MULTIMODAL NLP)

- Thesis: Transparent Analysis of Multi-Modal Embeddings

Cambridge, United Kingdom

2015 - 2022

Eötvös Loránd University

MSC IN COMPUTER SCIENCE

- Information Systems · Grade Outstanding

Budapest, Hungary

2012 - 2014

Eötvös Loránd University

BSC IN COMPUTER SCIENCE

- Grade Excellent

Budapest, Hungary

2009 - 2012

Eötvös Loránd University

BSC IN GERMANIC STUDIES

- Discontinued, moved to Faculty of Computer Science.

Budapest, Hungary

2007 - 2009

Skills

Programming	Python, MATLAB, SQL, LaTeX, HTML, CSS, MaterialUI, React
Scientific Computing	PyTorch, Lightning, LLMs, PyTorch DDP, Numpy, Scipy, Scikit Learn, NLTK, OpenCV, TensorBoard, SpaCy
DevOps	Anaconda, Pytest, PDB, Git, AWS, SLURM, WandB
Project Management	Shortcut, GitHub, Notion, Confluence
Languages	Hungarian (native), English (full proficiency), German (intermediate)
Media	Singing, Guitar, Writing, Music Production (Logic Pro, iMovie)

Extracurricular Studies

California Institute of the Arts

SHARPENED VISIONS: A POETRY WORKSHOP

Online

2021

Santa Fe Institute

INTRODUCTION TO COMPLEXITY

Online

2018

RegML Summer School

REGULARIZATION METHODS FOR MACHINE LEARNING

Genoa, Italy

2016

Lisbon Machine Learning Summer School

MACHINE LEARNING AND NLP · LEARNING WITH BIG DATA

Lisbon, Portugal

2014

Stanford University

MACHINE LEARNING · INSTRUCTOR: ANDREW NG

Online, Coursera

2014

Awards

2023	Best of ICCV 2023 Magazine , poster and extended abstract	Paris, France
2014	Best Student Video Award , AAAI Video competition	Québec, Canada
2014	Award of the Challenge Handicap & Technologies , Réseau Nouvelles Technologies APF conference (for our Telepresence system)	Lille, France
2013	Third Prize , National Conference of Student's Scholarly Circles (OTDK)	Budapest, Hungary

Communal Activity

Women@CL

Cambridge, United Kingdom

MENTORING OFFICER AND REPRESENTATIVE IN THE CAMBRIDGE COMPUTER LABORATORY'S GRADUATE FORUM OF WOMEN@CL

2017 - 2018

- Women@CL is an organisation to support women in computer science. It involves a mentoring system and provides representation of role models by organising talks and conferences.

Cambridge NLIP Seminars

Cambridge, United Kingdom

SEMINAR ORGANISER

2017

- Weekly seminar series in NLP and Machine Learning related topics

Media

Blog

Medium

WRITER

2019 - Present

- Blog on Responsible AI, mental health and other topics. My summary of Twitter's First Algorithmic Bias bounty challenge was published in Codex.

Video: Telepresence for People with Communication Impairment

AAAI, YouTube

RESEARCHER, DIRECTOR, ACTOR

2014

- "Augmentative and Alternative Communication and Telepresence" video that won the Best Student Video Award at AAAI Video Competition.

Interviews about the AAC Telepresence system

News Papers, Television

RESEARCHER

2014

- index.hu: one of the biggest Hungarian news portals.
- Hungarian RTL Klub news.
- Novum innovation and technology programme of the Budapest TV channel.

Publications

Language as the Medium: Multimodal Video Classification through text only, Laura Hanu, Anita L. Verő, James Thewlis, ICCV 2023, Paris, France - **Best of ICCV 2023 Magazine**

ICCV 2023

Transparent analysis of multi-modal embeddings (PhD Thesis), Anita L. Verő, University of Cambridge, Computer Laboratory, 2022

Cambridge 2022

Efficient Multi-Modal Embeddings from Structured Data, Anita L. Verő and Ann Copestake, arXiv:2110.02577

arXiv 2021

Deconstructing Multimodality: Visual Properties and Visual Context in Human Semantic Processing, Christopher Davis, Luana Bulat, Anita L. Verő and Ekaterina Shutova, *SEM2019, Minneapolis, USA

*SEM2019

Modelling Visual Properties and Visual Context in Multimodal Semantics, Christopher Davis, Luana Bulat, Anita L. Verő and Ekaterina Shutova, NIPS 2018, Montreal, Canada

NIPS 2018

Virtual Embodiment: A Scalable Long-Term Strategy for Artificial Intelligence Research, Douwe Kiela, Luana Bulat, Anita L. Verő and Stephen Clark, NIPS (MAIN) 2016, Barcelona, Spain

NIPS 2016

Comparing Data Sources and Architectures for Deep Visual Representation Learning in Semantics, Douwe Kiela, Anita L. Verő and Stephen Clark, Proceedings of the Empirical Methods in Natural Language Processing Conference (EMNLP 2016) Austin, Texas

EMNLP 2016

Columnar Machine: Fast estimation of structured sparse code, András Lőrincz, Zoltán Á Milacski, Balázs Pintér, Anita L. Verő Biologically Inspired Cognitive Architectures, 2015

BICA 2015

Maintain and Improve Mental Health by Smart Virtual Reality Serious Games, András Sárkány, Zoltán Tóser, Anita L. Verő, András Lőrincz, Takumi Toyama, Daniel Sonntag. Proceedings of the 5th International Symposium on Pervasive Computing Paradigms for Mental Health, LNCS Springer, 2015

MINDCARE 2015

Towards a Smart Wearable Tool to Enable People with SSPI to Communicate by Sentence Fragments, Gyula Vörös, Anita L. Verő, Takumi Toyama, András Lőrincz, Balázs Pintér, Brigitta Miksztai-Réthey, Daniel Sonntag. Proceedings of the International Symposium on Pervasive Computing Paradigms for Mental Health, LNCS Springer, 2014

MINDCARE 2014

Mobile AAC Solutions using Gaze Tracking and Optical Character Recognition, Gyula Vörös, Brigitta Miksztai-Réthey, Anita L. Verő, Takumi Toyama, Jason Orlosky, Daniel Sonntag, András Lőrincz. 16th Biennial Conference of the International Society for Augmentative and Alternative Communication (ISAAC), 2014

ISAAC 2014

Gaze Tracking and Language Model for Flexible Augmentative and Alternative Communication in Practical Scenarios, Anita L. Verő, Brigitta Miksztai-Réthey, Gyula Vörös, Ádám Zsigmond, Balázs Pintér, Takumi Toyama, Jason Orlosky, Daniel Sonntag, András Lőrincz. 16th Biennial Conference of the International Society for Augmentative and Alternative Communication (ISAAC), 2014

ISAAC 2014