Michiel de Jong | CV

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Education

University of Southern California
PhD Candidate (GPA 4.0)   *2018-present*

Carnegie Mellon University
Visiting Student (GPA 4.0)   *2017-2018*

Northwestern University
PhD Candidate Economics (GPA 4.0)   *2014–2016*

University of Cambridge
MPhil in Economic Research, Diploma in Economics (distinction)   *2012-2014*

Utrecht University
Joint Honours BSc in Mathematics and Physics (cum laude)   *2007-2011*

Selected Publications

COLT5: Faster Long-Range Transformers with Conditional Computation.
J. Ainslie, T. Lei, M. de Jong, S. Ontanon, S. Brahma, Y. Zemlyanskiy, D. Uthus, M. Guo, J. Lee-Thorpe, Y. Tay, Y. Sung, S. Sanghai. *arXiv preprint, 2023*

Pre-computed memory or on-the-fly encoding? A hybrid approach to retrieval augmentation makes the most of your compute.
M. de Jong, Y. Zemlyanskiy, N. FitzGerald, J. Ainslie, S. Sanghai, F. Sha, W. Cohen. *arXiv preprint, 2023*

FiDO: Fusion-in-Decoder optimized for stronger performance and faster inference.
M. de Jong, Y. Zemlyanskiy, J. Ainslie, N. FitzGerald, S. Sanghai, F. Sha, W. Cohen. *arXiv preprint, 2022*

QA Is the New KR: Question-Answer Pairs as Knowledge Bases.
W. Chen, W. Cohen, M. de Jong, N. Gupta, A. Presta, P. Verga, J. Wieting. *AAAI, 2023*

Generate-and-Retrieve: Use Your Predictions to Improve Retrieval for Semantic Parsing.
Y. Zemlyanskiy, M. de Jong, J. Ainslie, P. Pasupat, P. Shaw, L. Qiu, S. Sanghai, F. Sha. *COLING 2022*

Augmenting Pre-trained Language Models with QA-Memory for Open-Domain Question Answering.
W. Chen, .P Verga, M. de Jong, J. Wieting, W. Cohen. *EACL, 2023*

Mention Memory: incorporating textual knowledge into Transformers through entity mention attention.
M. de Jong, Y. Zemlyanskiy, N. FitzGerald, F. Sha, W. Cohen. *ICLR, 2022*

READTWICE: Reading Very Large Documents with Memories.
Y. Zemlyanskiy, J. Ainslie, M. de Jong, P. Pham, I. Eckstein, F. Sha. *NAACL, 2021*

Neural Theorem Provers Do Not Learn Rules Without Exploration.
M. de Jong and F. Sha. *arXiv preprint, 2019*

Towards a Robust Interactive and Learning Social Robot.
M. de Jong, K. Zhang, T. Rhodes, A. Roth, R. Schmucker, C. Zhou, S. Ferreira, M. Veloso, *AAMAS, 2018*

Work Experience

Machine Learning Lab - USC **Los Angeles**
Doctoral Candidate - Advisor: Prof. Fei Sha *2018–2023*
Thesis topic: Expanding the quality-compute frontier for retrieval-augmented language models.

Google Research **Remote**
Student Researcher - Host: William Cohen, Nicholas FitzGerald *2021–2023*
Project: Retrieval-augmented language modeling.

Tibra Capital **London, UK**
Trader *2011–2012*
Simulated derivative pricing models to make markets on equity index options.

UBS Investment Bank **London, UK**
Summar Analyst, Currency Research *June 2011 – September 2011*
Published a research report on efficacy of foreign exchange intervention and the relationship between foreign exchange intervention and central bank independence.

Barclays Capital **London, UK**
Summer Analyst, Investment Banking Division *June 2010 – September 2010*
Conducted study on private equity transactions in the Netherlands.

Skills

- **Languages:** Native speaker of English and Dutch
- **Programming Languages:** Python, Java, Fortran
- **Frameworks:** Jax, Pytorch, Tensorflow, ROS