

Martin Fajčík

NLP Researcher

Martin Fajčík

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Google Scholar

https://scholar.google.com/citations?user=KUU5fUUAAAAJ&hl=en&oi=sra

GitHub

https://github.com/MFajcik

Linkedin

https://www.linkedin.com/in/mfajcik/

Education

Brno University of Technology / Ph.D. Candidate

Since Sept 2017, BRNO, CZECHIA

Advisor: Pavel Smrž

Ph.D. thesis focusing on Question Answering

Topics: Extractive QA, Open-Domain QA, Document Retrieval

Brno University of Technology / M.Sc. Intelligent Systems

Sept 2015 - June 2017, BRNO, CZECHIA

M.Sc. thesis focusing on the stochastic optimization applied in automated processor verification

Brno University of Technology / B.Sc. Information Technology

Sept 2012 - June 2015, BRNO, CZECHIA

B.Sc. thesis focusing on the development of static analysis and quick fix functionality for CodAL architecture description language

Industry Experience

Codasip / Java/Python Developer

June 2015- Oct 2017 BRNO, CZECHIA

Development of Eclipse IDE plugins, CodAL language editor, python/bash scripts, simple javascript front-ends based on doT.js. Design of miscellaneous Java APIs.

Publications

<u>Fajcik, M.</u>, Docekal, M., Ondrej, K. and Smrz, P., 2021. <u>Pruning the Index Contents for Memory Efficient Open-Domain QA</u>. arXiv preprint arXiv:2102.10697.

Min, S., Boyd-Graber, J., Alberti, C., Chen, D., Choi, E., Collins, M., Guu, K., Hajishirzi, H., Lee, K., Palomaki, J., Raffel, C., Roberts, A., Kwiatkowski, T., Lewis, P., Wu, Y., Küttler, H., Liu, L., Minervini, P., Stenetorp, P., Riedel, S., Yang, S., Seo, M., Izacard, G., Petroni, F., Hosseini, L., De Cao, N., Grave, E., Yamada, I., Shimaoka, S., Suzuki, M., Miyawaki, S., Sato, S., Takahashi, R., Suzuki, J., Fajcik, M., Docekal, M., Ondrej, K., Smrz, P., Cheng, H., Shen, Y., Liu, X., He, P., Chen, W., Gao, J., Oguz, B., Chen, X., Karpukhin, V., Peshterliev, S., Okhonko, D., Schlichtkrull, M., Gupta, S., Mehdad, Y. and Yih, W., 2021. NeurlPS 2020 EfficientQA Competition: Systems, Analyses and Lessons Learned. arXiv preprint arXiv:2101.00133.

<u>Fajcik, M.</u>, Jon, J., Kesiraju, S. and Smrz, P., 2020. <u>Rethinking the objectives of extractive question answering</u>. *arXiv preprint arXiv:2008.12804*.

<u>Fajcik, M., Jon, J., Docekal, M. and Smrz, P., 2020, December. BUT-FIT at SemEval-2020 Task 5: Automatic Detection of Counterfactual Statements with Deep Pre-trained Language Representation Models.</u> In *Proceedings of the Fourteenth Workshop on Semantic Evaluation* (pp. 437-444).

Jon, J., <u>Fajcik, M.</u>, Docekal, M. and Smrz, P., 2020, December. <u>BUT-FIT at SemEval-2020 Task 4: Multilingual Commonsense</u>. In *Proceedings of the Fourteenth Workshop on Semantic Evaluation* (pp. 374-390).

Docekal, M., Fajcik, M., Jon, J. and Smrz, P., 2020, December. JokeMeter at SemEval-2020 Task 7: Convolutional Humor. In Proceedings of the Fourteenth Workshop on Semantic Evaluation (pp. 843-851).

Fajcik, M., Smrz, P. and Burget, L., 2019, June. <u>BUT-FIT at SemEval-2019 Task</u> 7: <u>Determining the Rumour Stance with Pre-Trained Deep Bidirectional</u> <u>Transformers</u>. In Proceedings of the 13th International Workshop on Semantic Evaluation (pp. 1097-1104).

<u>Fajcik, M.</u>, Smrz, P. and Zachariasova, M., 2017, December. <u>Automation of Processor Verification Using Recurrent Neural Networks</u>. In 2017 18th International Workshop on Microprocessor and SOC Test and Verification (MTV) (pp. 15-20). IEEE.

Projects

ROI Hunter -

Automatic Extraction of Attributes from Product Feeds

Since Aug 2018

Automatic product classification and detection of attributes from the product description. These are used to enhance product advertisements.

Awards & Achievements

EfficientQA competition at NeurIPS2020 (track <6GiB) – 3rd place 2020

Counterfactual Reasoning at SemEval-2020 (task B) – 1st place 2020 Counterfactual Reasoning at SemEval-2020 (task A) – 2nd place 2020 RumourEval at SemEval-2019 – 2nd place 2019

Deans Award for B.Sc. thesis 2015

Theses Supervision

Michal Slávka (M.Sc., ongoing) Multilingual Open-Domain Question Answering

Pavel Kocurek (B.Sc., ongoing) Visual Question Answering

Ksenia Bolshakova (B.Sc., 2020) <u>Stylized Natural Language Generation</u> in <u>Dialogue Systems</u>

Jozef Karabelly (B.Sc., 2020) Non-Supervised Sentiment Analysis
Alžbeta Štajerová (B.Sc., 2019) Automated Detection of Hate Speech
and Offensive Language

Tomáš Daniš (B.Sc., 2019) <u>Machine Comprehension Using</u> <u>Commonsense Knowledge</u>

Jan Kočí (B.Sc., 2019) Recommender System for Web Articles

Teaching

M.Sc. Courses

Natural Language Processing (ZPJa) (2019)

Artificial Intelligence and Machine Learning (SUI) (2019 – 2020)

B.Sc. Courses

Practical Aspects of Software Design (IVS) (2017 – 2021)

Scripting Languages (ISJ) (2017 – 2021)

NLP lecture at Summer School BISSIT19 (2019)

Skills

Communication & Organization

Before the pandemic, I used to organize reading groups on advanced machine learning/NLP papers at our university.

During the summers at the university (2013-2014), I worked at the Museum of Coins and Medals in my hometown, Kremnica, Slovak Republic. I have guided lots of local and foreign tourist groups and helped with the organization of special events at the museum.

Hobbies

Music – I enjoy playing drums and harmonica

Sports – Hiking is my thing