



# Martin Fajčík

## NLP Researcher

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### Martin Fajčík

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#### Web

<https://www.idiap.ch/en/people/directory/932>  
<https://www.fit.vut.cz/person/ifajcik/.en>  
<https://mfajcik.github.io/>

#### 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/>

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### Education

#### Brno University of Technology / Ph.D. Candidate

Sept 2017 – , BRNO, CZECHIA

Advisor: Pavel Smrž

Ph.D. thesis focusing on Question Answering

Topics: Extractive QA, Open-Domain QA, Bias in 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

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## Jobs

### IDIAP Research Institute / Research Assistant

Nov 2021 – , MARTIGNY, SWITZERLAND

Advisor: Petr Motlíček

Research related to Criteria H2020 Project

### Brno University of Technology / Research Assistant

Sept 2017 – , BRNO, CZECHIA

Advisor: Pavel Smrž

Research projects & PhD

### 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.

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## Publications

Fajcik, M., Jon, J., & Smrz, P., 2021. [Rethinking the Objectives of Extractive Question Answering](#). In *Proceedings of the 3rd Workshop on Machine Reading for Question Answering* (pp. 14–27).

Fajcik, M., Docekal, M., Ondrej, K. and Smrz, P., 2021. [R2-D2: A Modular Baseline for Open-Domain Question Answering](#). In *Findings of the Association for Computational Linguistics: EMNLP 2021* 2021

Fajcik, M., Docekal, M., Ondrej, K. and Smrz, P., 2021. [Pruning the Index Contents for Memory Efficient Open-Domain QA](#). *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. [NeurIPS 2020 EfficientQA Competition: Systems, Analyses and Lessons Learned](#). In *Proceedings of Machine Learning Research*. PMLR, 2021.

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](#). In *Proceedings of the Fourteenth Workshop on Semantic Evaluation* (pp. 437–444).

Jon, J., Fajcik, M., Docekal, M. and Smrz, P., 2020, December. [BUT-FIT at SemEval-2020 Task 4: Multilingual Commonsense](#). 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. [BUT-FIT at SemEval-2019 Task 7: Determining the Rumour Stance with Pre-Trained Deep Bidirectional Transformers](#). In *Proceedings of the 13th International Workshop on Semantic Evaluation* (pp. 1097–1104).

Fajcik, M., Smrz, P. and Zachariasova, M., 2017, December. [Automation of Processor Verification Using Recurrent Neural Networks](#). In *2017 18th International Workshop on Microprocessor and SOC Test and Verification (MTV)* (pp. 15–20). IEEE.

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## Projects

### H2020 Criteria –

**Comprehensive data-driven Risk and Threat Assessment Methods for the Early and Reliable Identification, Validation and Analysis of migration-related risks**

Since Nov 2021

Working on the novel interpretable & efficient fact-checking system.  
Project webpage is [here](#).

### 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.

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## 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**

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## Theses Supervision

Michal Slávka (M.Sc., 2021) [Multilingual Open-Domain Question Answering](#)

Pavel Kocurek (B.Sc., 2021) [Visual Question Answering](#)

Ksenia Bolshakova (B.Sc., 2020) [Stylized Natural Language Generation in Dialogue Systems](#)

Jozef Karabellý (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) [Machine Comprehension Using Commonsense Knowledge](#)

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

3 out of 7 students obtained A evaluation and Dean's prize

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## Teaching

M.Sc. Courses

[Natural Language Processing \(ZPJa\) \(2019, 2021\)](#)

[Artificial Intelligence and Machine Learning \(SUI\) \(2019 – \)](#)

B.Sc. Courses

[Practical Aspects of Software Design \(IVS\) \(2017 – 2021\)](#)

[Scripting Languages \(ISJ\) \(2017 – \)](#)

NLP lectures at Summer Schools BISSIT19 (2019), [BISSIT21](#) (2021)

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## **Skills**

### **Communication & Organization**

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 –** Drums and harmonica

**Sports –** Hiking, Running, Skating, Cycling, Volleyball, ...