

# Ronald Luc

## Machine Learning Engineer

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## EXPERIENCE

### NLP Research Engineer

#### Self employed @ Runecast Solutions Ltd.

📅 February 2020 – Present    📍 Brno, Czechia

- **NER** – End2end with custom constrains and continuous training
  - Scrapy, SpaCy, FastText, transformers, TF, PyTorch

### Machine Learning Research Engineer

#### Scable Business Solutions GmbH

📅 March 2019 – January 2020    📍 Vienna, Austria

- **Construction optimization** – End2end: IFC↔OCE↔Graph
  - Graph heuristics, Boost, IFC, OpenCascade, C++17
- **Similarity engine** – High-dim space, small training dataset
  - Scikit learn, pandas, numpy, REST, Python

### Software Developer

#### ARTIN, spol. s r. o.

📅 October 2016 – February 2019    📍 Brno, Czechia

- **AI powered Assistant** – Lead developer | link
  - Tensorflow, dlib, OpenCV, STT, TTS, Python
- **Speech processing** – Classification of children's pronunciation
  - Keras, pandas, numpy, speechpy, Python
- **Database system** – Database processing pipeline
  - Django, PostgreSQL, REST, Python
- **Roboauto** – Internship on the first Czech autonomous car
  - ROS, I2C, C++

### IT Teacher

#### Luzanky, hobby center

📅 September 2013 – August 2018    📍 Brno, Czechia

- Teaching basics of programming to children 9–15 years old
- 3 courses every week: C++, GameMaker, Karel

## ACHIEVEMENTS

- Gave talk at WeAreDevelopers Congress Vienna 2019 | link
- Absolute 1st at TechFest Munich 2019 with a CV mobile app | link
- Placed 1st in ML category of the Smart Health Hackathon Prague 2018 and Smart Mobility Hackathon Prague 2019
- Plaster medal at the International Olympiad in Informatics 2016

## EDUCATION / COURSES

### Bachelor of Mathematics and Computer Science

#### Faculty of Informatics, Masaryk University

📅 September 2017 – Present    📍 Brno, Czechia

- Half a year on Erasmus in Vienna, Austria
- **DeepSaber** – thesis | github | PDF
  - Tensorflow, pandas, numpy, numba, Python

## LIFE PHILOSOPHY

*“Per aspera ad astra.”*

## PROJECTS

### Small text classification

- Seeking medical aid on the internet can be deceiving. Sites like ulekare.cz offer professional help. A problem submitted by the patient has to be read many times and that is costly
- Developed a model to classify medical questions of patients | link
  - GloVe, CNN, LSTM

### Sound2face

- Developed and implemented a 2 DNN pipeline to generate a video of a realistic talking face from audio with speech in real-time for the AI powered Assistant
- Combined research papers and own ideas | link
  - Conditional GAN, regression, PCA

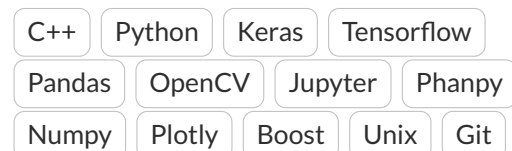
### Sentence classification

- Developed a model to detect features in reports of bullying
- Filtration of fake reports and classification of 50+ features
  - BERT, multi-class, multi-label

### BrNOC

- Founded BrNOC, a student science conference, and organised it for 4 years
- 250+ students, 30+ talks | link

## SKILLS



## LANGUAGES

Czech Fluent

English C1

German B1

## REFEREES

### Mgr. David Kláška

Teacher of advanced courses

📍 Masaryk Univerzity, Czechia

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