Toni Kukurin

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Experience

from 07/2019 *to* 10/2019 **Software Engineer Intern**, Google Lens, Zürich.
- Devised a labeling scheme focused on unique project specs and a re-use of existing datasets
- Collaborated across teams to leverage internal efforts on synthetic dataset generation (*C++*)
- Implemented a user-friendly front-end for efficient image labeling (*JavaScript*)
- Researched and implemented a font style detection autoencoder ML model (*TensorFlow*)
- Researched and implemented an automated contrast adjustment algorithm (*C++ back-end*)

from 04/2019 *to* 07/2019 **Applied Science Intern**, Microsoft NLU Group, Redmond.
- Adapted BERT for joint intent classification and slot filling in conversational NLU (*PyTorch*)
- Collected, analyzed, and cleaned a large conversational multi-turn dataset (*SpaCy, NLTK*)
- Devised experiments and implemented hand-crafted features to evaluate transfer learning in the Snorkel weak supervision framework, focusing on the cold start problem (*SKLearn, NLTK*)
- Leveraged relevant findings to advise part-time on a separate definition mining project

from 10/2018 *to* 04/2019 **Research Intern**, *Part-time*, TakeLab, Zagreb.
- Implemented and evaluated different active learning domain adaptation approaches (*SKLearn*)
- Analyzed & vastly improved the quality and performance of a large legacy codebase (*Python*)
- Maintained a production-grade ML model: serving, data collection & storage (*Django, React*)
- Facilitated hand-off by writing well-documented research code and an extensive knowledge base

from 07/2018 *to* 10/2018 **Software Engineer Intern**, Microsoft Office 365, Redmond.
- Collaborated with a small agile team to scope out intial project requirements
- Architected & implemented back-end logic for a network topology builder service (*C#, Azure*)
- Implemented bugfixes for an internal microservice framework (*C#*)

from 02/2018 *to* 07/2018 **Freelance Software Engineer**, Remote.
- Devised unique solutions for a broad clientele in parallel with my university work
- Examples include maintaining a payment procesing service (*NodeJS*), coming up with efficient transformation algorithms for an ETL pipeline (*Django*), devising and implementing an algorithm to create Lego objects based on corresponding *.obj* 3D geometry definition data (*Python*)

from 07/2017 *to* 02/2018 **Software Engineer Intern**, Google Play, London.
- Architected and implemented complete features on the Google Play back-end, focusing on delivering well-documented and thoroughly tested code (*Java*)
- Implemented auto-update management and per-device app access policies for managed Play
- Collaborated across teams to translate business goals of an open-ended WebAPK project and to architect a PoC within the constraints of existing infrastructure

from 07/2016 *to* 10/2016 **Software Engineer Intern**, InfoBip, Zagreb.
- Built a PoC for the Facebook Messenger service from the ground up (*Spring Boot*)
- Implemented new features for various greenfield company projects (*Java*)
- Stress-tested production-ready services & proposed fixes for discovered bottlenecks (*JMC*)
- Discovered and fixed a resource leak causing unpredictable behavior in production services

Research Papers

2018 **Personalized Medicine: Redefining Cancer Treatment**, In Proceedings of Text Analysis and Retrieval course at FER.

2017 **Classification Experiments for Answer Retrieval in Community QA**, In Proceedings of SemEval 2017.

Education

2017–2020 **MSc in Computer Science**, FER Zagreb.
Structured Deep Learning With Graph Neural Networks

2014–2017 **BSc in Computer Science**, FER Zagreb.
Claim and Stance Classification in Online Discussions Using Machine Learning

Skills

Languages Python, Java, TypeScript, C#, C++, HTML, CSS

Tools Git, Linux, Vim; NumPy, SKLearn, PyTorch, Django, NodeJS, Spring