Toni Kukurin

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---------- Summary

Self-driven computer scientist with proven technical expertise and a research background.
Fast learner with a solid grasp of algorithms, data structures, statistics, and ML.

---------- Experience

from 07/2019 **Software Engineer Intern**, Google Lens, Zurich.
to 10/2019
- Surveyed the relevant SOTA in font style detection from raw images
- Devised a labelling scheme based on unique project specifications; collaborated across internal teams to leverage existing data and reduce duplicate labelling work
- Implemented a user-friendly front-end for efficient image labelling
- Implemented and evaluated an unsupervised autoencoder-based model in TensorFlow
- Researched and implemented an accessibility contrast adjustment algorithm in the Google search C++ back-end

from 04/2019 **Applied Science Intern**, Microsoft NLU Group, Redmond.
to 07/2019
- Adapted the BERT transformer model for slot and intent classification in conversational NLU
- Devised and implemented various hand-crafted features to evaluate transfer learning in the Snorkel weak supervision framework, focusing on the cold start problem
- Conducted thorough experiments and documented comparisons of various modelling approaches
- Used relevant findings to advise part-time on a separate definition mining project
- Actively participated in regular research paper reading sessions

from 10/2018 **Research Intern**, TakeLab, Zagreb.
to 04/2019
- Surveyed the relevant SOTA in active learning for NLP
- Implemented and evaluated imitation learning based approaches for domain adaptation. Focused on traditional ML modeling (rich hand-crafted features, implementation in SKLearn)
- Analyzed & vastly improved the architecture, quality, and performance of a large legacy codebase
- Maintained a production-grade ML model, including serving, data collection and cleaning
- Facilitated a gentle project hand-off by writing high-quality research code and composing an extensive knowledge base to help future researchers build upon my work.

from 07/2018 **Software Engineer Intern**, Microsoft Office 365, Redmond.
to 10/2018
- Collaborated with a small agile team to scope out intial project requirements
- Architected and implemented the back-end logic for a topology builder service to serve as a tool for testing hybrid Exchange deployments
- Provided fixes to an internal C# microservice framework for bugs encountered during development

from 02/2018 **Freelance Software Engineer**, Zagreb.
to 07/2018
- Devised unique solutions for a broad clientele, spanning from minor Python scripts to performing as the lead back-end developer on mid-scale software projects
- Examples include maintaining a payment processing NodeJS service, coming up with efficient data transformation algorithms for a Django-based ETL pipeline, devising and implementing a smart algorithm to create Lego objects based on 3D geometry definition files

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

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

Tools   Git, Linux, NumPy, SKLearn, PyTorch, Django, NodeJS