Aleksandar Savkov

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APPLIED AI MANAGER

SUMMARY

Motivated applied AI leader with more than 10 years of experience in Natural Language Processing and Machine Learning. Team player dedicated to promoting a culture of trust and personal growth. Proven track record of bringing evidence-based innovation into products.

LEADERSHIP HIGHLIGHTS

- A proven record of enabling innovation through aligning product goals with science capabilities.
- Years of experience in communicating complex scientific concepts to senior leaders and a wide range of stakeholders.
- Built a science team from the ground up, establishing a culture of trust, innovation, and professional growth.
- Established academic publishing as part of product decision-making based on empirical evidence.

MAJOR PROJECTS

Note Assistant

2019-2022

My team was part of a wider cross-functional product team that designed and delivered a live consultation summarisation system for Babylon's Clinical Portal, which *decreased the documentation time during consultations with nurses by 17%*.

- We followed a double-diamond product design strategy, to deliver a product feature improving the clinician's efficiency and experience.
- Our data preparation, model architecture, and release strategy had to balance our delivery goals against Data Privacy and Clinical Safety regulations.
- I designed a protocol that made human evaluation more reliable and up to 50% more efficient.
- Consistently published all notable experiments within the bounds of the commercially prudent.
- Organised and co-supervised a Babylon-funded industrial PhD for one of my reports (submission expected in H1 2023).

Clinical Information Extraction Stack

2018-2022

My team and I designed, delivered, and maintained the clinical information extraction system that underpins multiple Babylon technologies and products (e.g. intent recognition, data mining for risk stratification, consultation summarisation).

Deep Embedder

2017-2022

We developed an intent recognition technology that reduced the amount of expensive clinical validation processes from weeks to hours.

EXPERIENCE

Applied AI Research Manager

Babylon Health, Jun 2019 to Dec 2022

As a leader, I aligned our research work closer to the product needs, promoted an end-to-end ownership model for AI services, and introduced product design best practices to our development process.

Senior NLP Scientist

Babylon Health, Dec 2018 to May 2019

I was the tech lead for the NLP squad in the Research Tribe. In addition to Information Extraction, we focused on Speech Processing, and Semantic Textual Similarity to support Babylon's chatbot product.

NLP Scientist

Babylon Health, Feb 2017 to Nov 2018

I led the modernisation of the Information Extraction stack, moving it to Python and allowing it to interface with bleeding-edge technologies; I also had substantial liberty in shaping the NLP team and bringing in outstanding talent.

Data Scientist

Datamaran, Sep 2015 to Jan 2017

I designed and delivered a news analytics module for the Datamaran platform, based on a streaming data ingestion system.

Research Assisstant

Bulgarian Academy of Sciences, Apr 2010 to Dec 2011

I worked on a Bulgarian-English machine translation system.

SELECTED PUBLICATIONS

Google Scholar: *http://scholar.sasho.io*

- Consultation Checklists: Standardising the Human Evaluation of Medical Note Generation, ***Savkov et al. 2022, EMNLP.***

- User-Driven Research of Medical Note Generation Software, ***Knoll et al. 2022, NAACL. (Best Paper Award)***

- Primock57: A dataset of primary care mock consultations, ***Korfiatis et al. 2022, ACL***

- Don't Settle for Average, Go for the Max: Fuzzy Sets and Max-Pooled Word Vectors, ***Zhelezniak et al. 2019, ICLR***

EDUCATION

University of Sussex
PhD in Clinical NLP, 2012-2015
I applied classic and neural machine learning to clinical information extraction.

University of Tübingen
MA in Computational Linguistics, 2006-2009

University of Tübingen
BA in Computational Linguistics, 2003-2006