Antonis Maronikolakis

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Education

> *MSc* Speech and Language Processing - First Honours (1:1)   September 2018 - September 2019
> University of Sheffield, Sheffield, UK
>
> *BSc* Computer Science - 8.4/10.0 (Upper 2:1)   October 2014 - June 2018
> University of Piraeus, Athens, Greece

Experience

> Speech Processing Researcher for VoiceBase Research Lab
> - *Analyzed Variational Autoencoders and Phrase Detection methods*   November 2018 - August 2019
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> - As part of Dr. Thomas Hain's VoiceBase research lab, I was assisting researchers by exploring a novel Variational Autoencoder structure, alongside work on Phrase Detection and Extraction.
> - Analyzed and ran experiments on the Factorized Hierarchical Variational Autoencoder [repository](#) and on various Phrase Detection algorithms.
> - Set up and documented experiment configurations for [ESPNet](#) and [DeepSpeech](#).
> - **Deep Learning, Speech Processing, NLP, Variational Autoencoders, Research, Python**
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> AI Programmer/Writer for Google Summer of Code
> - *Mentored under Dr. Peter Norvig, working on AI algorithms*   June - September 2017
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> - Worked on the [Python repository](#) of Dr. Norvig's book, *Artificial Intelligence: A Modern Approach*.
> - Implemented, evaluated and wrote on Natural Language Processing and Machine Learning algorithms and concepts, explaining how they work and providing examples students can work with.
> - Collaborated with Dr. Norvig to polish pseudocode from the book.
> - After the end of the project, I was given administrator rights to the repository.
> - **AI, Natural Language Processing, Machine Learning, Python, Writing**
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> Algorithms Researcher for Thesis Project
> - *Researched the problem of ride-sharing, proposing novel algorithms*   October 2017 - August 2018
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> - For the problem of ride-sharing, we are tasked with organizing users into groups to be served by cars in an optimal manner. Companies that solve variations of this problem include Uber and Lyft.
> - Researched the bibliography of this problem domain and wrote a review of the most relevant papers.
> - Analyzed and developed in Python three new algorithms. One algorithm makes use of k-Means, another uses a Greedy Approach and the last one is a more general algorithm.
> - **Algorithm Design, Computation Theory, Approximation Algorithms, Python**
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> Machine Learning Competitor on Kaggle ([Profile](#))
> - *[Kaggle](#) is a website owned by Google where programmers compete in AI competitions.*
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> - I joined in February 2018 and I have been active ever since, taking part in challenges and discussions. I have participated in two competitions, winning a silver and a bronze medal.
> - [TalkingData AdTracking Fraud Detection Challenge](#): Silver Medal, Finished in Top 5%:
>   - We were tasked with predicting whether a user would download an app or not after clicking on an ad.
>   - Worked in a team to build Deep Learning and LightGB models, utilizing Google Cloud Computing for the heavier computations required.
> - [Toxic Comment Classification Challenge](#): Bronze Medal, Finished in Top 8%:
>   - A Natural Language Classification challenge where the goal was to score online comments on six different cyber-bullying metrics, like toxicity and identity hate.
>   - Performed text pre-processing, converting emoticons to text and removing common words.
>   - Created an ensemble of two Recurrent Neural Network variants, LSTMs and GRUs.
> - **Python, Data Analysis, AI, Natural Language Processing, Machine Learning**

Awards

> - Scholarship for academic excellence - 2016-2017, 2017-2018
> - Kaggle Machine Learning Competitions (2018) - Silver and Bronze Medals
> - Microsoft Imagine Cup Competition (2015 and 2016) - National Finalist
> - National Computer Science Competition 2014 - Finalist