Ioannis Koutoulakis | CV

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https://koutoulakis.github.io/

Profile

Dedicated and motivated professional with a strong background in Java. I enjoy combating challenging algorithmic problems, with a focus on time complexity and scalability. I have designed, documented and implemented enterprise grade software solutions that expanded existing containerised microservices, deployed in distributed systems that communicate via a REST interface. Computer savvy, with research experience in data mining and genuine enthusiast about machine learning techniques and frameworks, namely deep learning with tensorflow in python. Bilingual in English/Greek, with some basic understanding of the French language (B1).

Education

MSc in Advanced Computing

Data Mining, Machine Learning and High Performance Computing,   *2016–2017*
University of Bristol, UK
GPA – 2.1

Bsc in Informatics and Telecommunications

University of Athens, Greece,   *2009–2014*
Focus on applied Informatics, GPA – 7.28/10

Work Experience

Full Stack Software Engineer

Fareham, UK,   *October 2017–Present*
An engineering position with focus on voip telephony solutions, web development and basic android development. Some of the responsibilities I have are revolving around designing, implementing, expanding, testing and maintaining microservices deployed in distributed systems that communicate via a REST interface. Last but not least, I have also debugged and rebranded the android Linphone softphone for multiple customers and created new personalised log in pages with the relevant backend code in Android Studio to provision the application remotely from a company nodejs server, given a correct customer username and password.

○ *Development*: Java and Typescript with NodeJS for the backend and AngularJS for the frontend, using both Fedora and Centos 6/7 (in VMs) for testing and implementation. Eclipse, Visual Studio Code, Sublime, Vim with tslint are used as IDEs/text editors. Database utilized is mariadb with MySQL.

○ *Deployment*: RHEL7, using docker for containerisation and pm2 as a watchdog for the services.

Software Engineering Internship

Codly, Cairo, Egypt,   *June–July 2015*

Internship along with a worldwide non-profit organization called AIESEC, in a start up company in Cairo, Egypt for two months, focusing on android and web application development.

- *Development*: Java using Android Studio for the android development and Eclipse for the web development with angular for the frontend.

Research Assistance

University of Athens, Greece,   *October–March 2015*

I had the honour to join a university team under mister Katakis' guidance, to help, as part of my thesis, implement the algorithm described in the paper : Mining Opinion Words and Opinion Targets in a Two-Stage Framework Liheng Xu, Kang Liu, Siwei Lai, Yubo Chen and Jun Zhao, published in ACL13 conference, in order to evaluate the proposed domain specific polarity lexicon to the one created by Pantelis Agathangelou, Ioannis Katakis, Fotios Kokkoras, Konstantinos Ntonas in the paper : Mining Domain-Specific Dictionaries of Opinion Words, published at WISE 2014 conference. (http://deixto.com/niosto/)

- *Development*: Java using NetBeans IDE and some parts required the use of C. Minipar and Stanford parser for POS tagging, stemming, lemmatization and dependency tree creation.

Programming Languages, Frameworks & Tools

Advanced: Java, MySQL, TypeScript, C/C++, Nodejs, Git, Mercurial, Agile Methodologies, Jira, MVC Spring, JavaScript, HTML, CSS, JSP, LaTeX, OpenMP, MPI, Matlab/Octave, Weka, Scikit-Learn, Python, Tensorflow

Basic: Docker, Elasticsearch, Maven, Ant, Google Maps Javascript api version 3, CUDA, Voicexml, Opencv, OpenGL, Bash Scripting

Publications

Learning Patterns for Discovering Domain Oriented Opinion Words, Pantelis Agathangelou, Ioannis Katakis, Ioannis Koutoulakis, Fotios Kokkoras, Dimitrios Gunopulos, KAIS 2017

Projects, Coursework & Github Contributions

Data Mining, Machine Learning & Artificial Intelligence

- Deep learning technique applied on activity recognition problems from famous AR datasets using tensorflow. Models trained: Deep feedforward Neural Networks (NNs), Convolutional NNs, Recurrent NNs - specifically Long Short Term Memory NNs (LSTMs). Code was written in python and is on a 12-starred public github repository (https://github.com/Koutoulakis/Deep-Learning-for-Human-Activity-Recognition).

- Sentiment analysis in Twitter posts - Tests using various clustering / classification algorithms (Using Java, and a machine learning tool called Weka)

- A.I. implementation of finding a labyrinth's exit using A star algorithm from google code repository with three different heuristics in python

Parallel Programming

- Serial and Parallel optimization of Lattice-Boltzman Method for fluid simulation in 2D (using MPI, OpenMP, OpenGL)

Activities & Events

20/09/2018: Getting Started with Google Kubernetes Engine (certification available on linkedin)

10/05/2015: Programming Mobile Applications for Android Handheld Systems: Part 1 (certification available on linkedin)