

Antonia Saravanou - Curriculum Vitæ

PERSONAL INFORMATION

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EDUCATIONAL BACKGROUND

- Nov. 2014 – now **Ph.D. Student in Data Mining**, Dept. of Informatics and Telecommunications, University of Athens
Advisor: Prof. Dimitrios Gunopulos
- Nov. 2012 – **M.Sc. in Advanced Information Systems**, Dept. of Informatics and Telecommunications, University of Athens
Oct. 2014 G.P.A.: 8.73 / 10 Highest Distinction (Arista) (ranked 2nd of graduating class)
M.Sc. Thesis: *Data Mining on Social Media to Detect Events and Disasters*. Advisor: Prof. Dimitrios Gunopulos
- Oct. 2007 – **B.Sc. in Computer Science**, Dept. of Informatics and Telecommunications, University of Athens
Oct. 2012 Specialization: Computer Systems and Applications
G.P.A.: 8.00 / 10 (top 10% of graduating class)
B.Sc. Thesis: *Product Review Summarization*. Advisor: Prof. Dimitrios Gunopulos

PROFESSIONAL AND RESEARCH EXPERIENCE

- July 2017 – Sep. 2017 **Software Engineer Intern** at UBER. I was part of the Payments Backend Team and I developed an algorithm to detect anomalies on sparse timeseries using Golang and Python.
- Dec. 2015 – Now **Software Engineer and Research Assistant** in the VaVeL project funded by the E.U. We are working on combining heterogeneous data (sensors, video, social networks) from smart cities to recognize anomalies. My work is on a hybrid technique for anomaly detection, combining structure with content of a social network, using graph mining and deep learning techniques written in Python.
- June 2013 – Now **Member** of the scientific student committee of the task force Human-Computer Interaction and Knowledge Discovery/Data Mining HCI-KDD. Advised by Prof. Gunopulos and Prof. A. Holzinger.
- Jan. 2013 – Sep. 2015 **Software Engineer and Research Assistant** in the INSIGHT project funded by the E.U. We combined heterogeneous data from a smart city in order to recognize traffic and emergencies. I worked on an affective-based technique that identifies and ranks spatial regions by how much they were impacted by an event, such as flooding. The technique was supplemented by a visual component, converting tweets to emotions via an ML approach and displaying them on a map. The programming language I used during this period was mostly Java.
- Software Engineer and Research Assistant** in the MDD project (Mining Mobility Data) co-funded by the E.U. and the Greek Government. I worked on data sampling techniques and outlier detection algorithms in streaming data collected by sensors.
- Management and Administration** of an svn server for INSIGHT and VaVeL projects.
- Oct. 2010 – Now **Research Assistant** of the Knowledge Discovery in Databases Laboratory (KDD lab UoA), advised by Prof. Dimitrios Gunopulos. I have designed and implemented various algorithms (in Java/Python) for text, graph and web mining, such as text summarization, sentiment analysis and event/trend detection on social media streams.

RESEARCH INTERESTS Data Mining, Machine Learning, Social Network Analysis, Anomaly Detection, Text/Graph Mining

PUBLICATIONS

- 2018 *Detecting and Delineating Events and Sub-Events in Streaming Content Networks* ICDE 2018
A. Saravanou, I. Katakis, G. Valkanas, D. Gunopulos
- 2017 *Revealing the Hidden Links in Content Networks: An Application to Event Discovery* CIKM 2017
A. Saravanou, I. Katakis, D. Gunopulos, V. Kalogeraki
- Event Detection in Social Networks (Doctoral Forum)* SIAM SDM 2017
A. Saravanou
- 2016 *Event Detection on Social Media Streams* Machine Learning Summer School
A. Saravanou
- 2015 *Twitter Floods when it Rains: A Case Study of the UK Floods in early 2014* WWW 2015 (SWDM workshop)
A. Saravanou, G. Valkanas, D. Gunopulos, G. Andrienko
- Stürme und Hochwasser in Social Media* Crisis Prevention, magazine
S. Steenhoek, G. Adrienko, N. Adrienko, I. Katakis, A. Saravanou, G. Valkanas, D. Gunopulos, G. Fuchs, H. Stange
- Data Mining on Social Media to Detect Events and Disasters* Selected Theses of Master Students, UoA
A. Saravanou, D. Gunopulos
- 2014 *A Faceted Crawler for the Twitter Service* WISE 2014
G. Valkanas, A. Saravanou, D. Gunopulos
- 2013 *Product Review Summarization* Selected Theses of Bachelor Students, UoA
A. Saravanou, D. Gunopulos

DISTINCTIONS / MISC

- Aug. 2017 ACM SIGIR Student Travel Award
- Sept. 2017 Volunteered as a coach on a Django Girls event at the Hague, Netherlands
- Feb. 2017 Selected to participate and present at the SIAM SDM Doctoral Forum & SIAM SDM Student Travel Award
- June 2016 ACM SIGKDD Student Travel Award
- Feb. 2016 Selected to attend the Machine Learning Summer School MLSS in Cadiz, Spain
- June 2011 Student Scholarship for the Hellenic Artificial Intelligence Summer School HAISS in Patra, Greece
- Sept. 2011 - 2012 Online courses from Coursera: NLP, Machine Learning, Artificial Intelligence, Databases
- 2001 - 2007 Honors and Awards in High School, each year
 - 2004 Passed in 2nd phase of the Hellenic Mathematical Society (ΘΑΛΗΣ) for the European Mathematical Olympiad
- March 2005 Participated in AMUN as an ambassador, Athens Model United Nations, Deutshe Schule Athen
- Nov. 2003 Participated in TMUN as a delegate, Thessaloniki Model United Nations, Anatolia College
- External Reviewer ACML JMLR 2017, CIKM 2015, WSDM 2014, HCI-KDD 2014, SIGMOD 2014, ASONAM 2013, COPEM 2013

CONFERENCES

- November 2017 Attended, volunteered and presented at the ACM CIKM 2017, Singapore, Pan Pacific.
- April 2017 Attended, volunteered and presented at the SIAM SDM 2017, Houston, TX, USA.
- August 2016 Attended and presented at the ASONAM 2016, San Fransisco, CA, USA.
Attended and volunteered at the ACM SIGKDD 2016, San Fransisco, CA, USA.
- May 2015 Attended the 24th World Wide Web Conference WWW 2015, Florence, Italy.
- Oct. 2014 Attended the 15th on Web Information System Engineering WISE 2014, Thessaloniki, Greece.
- July 2014 Attended the 12th Hellenic Data Management Symposium HDMS 2014, Athens, Greece.
- June 2013 Attended and presented at SouthCHI 2013, Maribor, Slovenia.
- Sep. 2011 Attended and volunteered at the ECML PKDD 2011, Athens, Greece.

SUMMER SCHOOLS

- May 2016 Attended the **Machine Learning Summer School (MLSS 2016)**, May 11-21, Cadiz, Spain.
- July 2011 Attended the **Hellenic Artificial Intelligence Summer School (HAISS 2011)**, Patra, Greece.

TEACHING EXPERIENCE

- Fall 2016-17 **Big Data Management** (graduate course): Coursework & Grader
- Fall 2016-17, Spring 2013-14, Spring 2012-13 **Database Systems Implementation** (undergraduate course): Coursework/Lab Instructor, Office hours & Grader
Teaching Assistant Leader for fall 2016-17
- Fall 2015-16 **Big Data Analysis Techniques** (undergraduate course): Coursework/Lab Instructor, Office hours & Grader
- Spring 2015-16, 2014-15 **Design and Use of Database Systems** (undergraduate course): Coursework Instructor, Office hours & Grader
- Spring 2016-17, Spring 2015-16, Fall 2013-14, Fall 2012-13 **Data Mining** (undergraduate course): Coursework/Lab Instructor, Office hours & Grader
- Fall 2014-15 **Software Development** (undergraduate course): Coursework, Office hours, Grader & Lecturer
- Fall 2013-14, Fall 2012-13 **Artificial Intelligence** (undergraduate course): Coursework/Lab Instructor, Office hours & Grader
- Spring 2012-13 **Software Engineering** (undergraduate course): Supervisor of team with 15 undergrads
- Fall 2011-12 **Human-Computer Interaction** (undergraduate course): Lab Instructor, Office hours & Grader

TECHNICAL SKILLS

- Programming Python, Golang, Java, C, C++, node.js, Prolog Scripting Bourne/Bash shell
- Web Technologies HTML, CSS, PHP, JSP, Javascript, Ajax Query Languages SQL (MySQL)
- Other SciKit learn, Tensorflow, Kafka, Numpy, pandas, gensim, matplotlib, KERAS, WEKA, Matlab, Lucene, SVN, GIT, STL, Nagios, L^AT_EX

LANGUAGES

- Greek Native
- English Fluent (Certificate of Proficiency in English, University of Michigan, 2010)
- French Intermediate (Diplôme d'études en langue française 1er Degré, DELF B1, 2006)