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## Education

- 9/2013 – 6/2019 **PhD candidate in Computer Science**, *Athens University of Economics and Business*, Department of Informatics.  
Advisor: Prof. Vana Kalogeraki (AUEB)
- 2011 – 2013 **M.Sc. in Computer Science**, *Athens University of Economics and Business*, Department of Informatics, GPA 8.86/10.  
Thesis: “Efficient Dissemination of Emergency Information in Social Networks under Time Constraints.”
- 2007 – 2011 **B.Sc. (4-year program) in “Informatics”**, *Athens University of Economics and Business*, Department of Informatics, GPA 7.68/10.

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## Research interests

Social Networks, Information Diffusion, Influence Maximization, Misinformation identification, Misinformation limitation, Participatory Sensing Systems

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## Work Experience

- 3/2019 – today **Technical Project Manager**, *IBM Benelux*.
- Plan and coordinate research projects exploiting advance machine learning approaches to meet the client's needs
  - Team Management, lead and facilitate collaborative problem solving. Coordination of efforts among multiple business units.
  - Communicate proactively with all involved personnel to provide encouragement, identify problems, create solutions, and implement efficiency improvements.
  - Management and mentorship of junior researchers
- 5/2018 – 8/2018 **OSINT Lead Researcher**, *IBM Benelux*.
- Research into Open Source Intelligence Technologies and Software applicable to NATO project requirements
  - OSINT Project Review and Technical Comments
  - Requirement Analysis and Flow Chart Design for upcoming projects
  - NATO Challenge Questions Demo Orchestration
- 7/2014 – 2/2019 **Researcher**, *NGHCS - Creating the Next-Generation Mobile Human-Centered Systems*, EU research funding program.
- Proposed a dissemination model for Influence Maximization in Online Social Networks (OSNs) that captures the interaction of conflicting information, such as misinformation and credible news, and designed a novel model for influence maximization with multiple correlation types and degrees among the different cascades unfolding in OSNs.
  - Designed an efficient algorithm to identify influential users in order to limit the spread of misinformation. The proposed approached significantly outperforms existing schemes for misinformation blocking in social networks.
  - Suggested a misinformation identification model for emergency events in the network of Twitter. The proposed model considers statistical features of the tweets and users and exploits machine learning algorithms for the task of misinformation identification. We achieve up to 14% higher accuracy in misinformation identification compared to existing approaches.
  - Designed a topic aware recommendation system towards influence maximization in social networks. The system utilizes Wikipedia articles and structure to identify the topics of a tweet leading to more than 89% of the tweets classified to the correct category and achieving an accuracy of up to 43% higher than existing approaches.

- 9/2013–7/2014 **Researcher, INSIGHT - Intelligent Synthesis and Real-time Response using Massive Streaming of Heterogeneous Data**, EU research funding program.
- Designed a location based algorithm for emergency notification in Social Networks. Based on the location of the event and the users that need to be notified, the algorithm identifies a subset of available users to initiate the propagation of the corresponding information. Our approach performs with up to 12% better compared to existing approaches regarding the notification of users, while requiring significantly less time to identify the appropriate set of propagation initiators
- 9/2012–6/2015 **Web Developer - Freelancer.**
- Full-stack development and maintenance of an Extreme-Sports site with real-streaming video using Flowplayer, PHP, Javascript, MySQL, HTML and CSS.
  - Incorporated a pay-pal recurring payment for subscriptions to a site services
  - Implemented the login flow for subscribed users and Facebook-login button using the Facebook PHP Graph Api and Facebook Javascript SDK
- 2/2011–7/2011 **Software and Network Development - Internship, SiEBEN IT Company.**
- Front-end website developer
  - Facebook Application development
  - WPF Desktop Application development
- 11/2007–12/2010 **Sales Marketing Assistant, Sales Promotion Center.**
- Employed as Sales Promotion Assistant for B2C marketing campaigns

## Publications

- **Influence Maximization in Evolving Multi-Campaign Environments**, *Iouliana Litou, Vana Kalogeraki*, 2018 IEEE International Conference on Big Data, Seattle, WA, USA, December 2018.
- **Efficient and timely misinformation blocking under varying cost constraints**, *Iouliana Litou, Vana Kalogeraki, Ioannis Katakis, Dimitrios Gunopulos*, Online Social Networks and Media, Volume 2, August 2017, Pages 19-31, ISSN 2468-6964.
- **Influence Maximization in a Many Cascades World**, *Iouliana Litou, Vana Kalogeraki, Dimitrios Gunopulos*, In Proceedings of 37th IEEE International Conference on Distributed Computing Systems (ICDCS), Atlanta, GA, USA, June 2017.
- **Pythia: A System for Online Topic Discovery of Social Media Posts (Demo)**, *Iouliana Litou, Vana Kalogeraki*, In Proceedings of 37th IEEE International Conference on Distributed Computing Systems (ICDCS), Atlanta, GA, USA, June 2017.
- **On Topic Aware Recommendation to Increase Popularity in Microblogging Services**, *Iouliana Litou, Vana Kalogeraki, Dimitrios Gunopulos*, In On the Move to Meaningful Internet Systems: OTM 2016 Conferences, Rhodes, Greece, October 2016.
- **Real-Time and Cost-Effective Limitation of Misinformation Propagation**, *Iouliana Litou, Vana Kalogeraki, Ioannis Katakis, Dimitrios Gunopulos*, In Proceedings of 17th IEEE International Conference on Mobile Data Management (MDM), Porto, Portugal, June 2016.
- **Efficient Techniques for Time-constrained Information Dissemination using Location-based Social Networks**, *Iouliana Litou, Ioannis Boutsis, Vana Kalogeraki*, Information Systems journal, 22 December 2015 (available online), in press.
- **A Model for Identifying Misinformation in Online Social Networks**, *Sotirios Antoniadis, Iouliana Litou, Vana Kalogeraki*, In On the Move to Meaningful Internet Systems: OTM 2015 Conferences, Rhodes, Greece, October 2015.
- **Using Location-based Social Networks for Time-constrained Information Dissemination**, *Iouliana Litou, Ioannis Boutsis, Vana Kalogeraki*, In Proceedings of 15th IEEE International Conference on Mobile Data Management (MDM), Brisbane, Australia, July 2014, **IBM best student paper runner-up award**.

- **Efficient Dissemination of Emergency Information using a Social Network**, *Iouliana Litou, Ioannis Boutsis, Vana Kalogeraki*, Mining Urban Data (MUD) - EDBT/ICDT 2014 Workshop, Athens, Greece, 2014.

## Awards

- ICDCS 2017 Travel Grant Award
- IBM best student paper runner-up award in MDM 2014

**Using Location-based Social Networks for Time-constrained Information Dissemination**, *Iouliana Litou, Ioannis Boutsis, Vana Kalogeraki*, In Proceedings of 15th IEEE International Conference on Mobile Data Management (MDM).

## Certifications

**Data Science Foundations - Level 2 (V2)**, *Jul 2018*, IBM.

**Data Science Hands-On with Open Source Tools**, *Jul 2018*, IBM Cognitive Class.

**Data Science Methodology**, *Jul 2018*, IBM Cognitive Class.

**Data Science for Business - Level 2**, *Jul 2018*, IBM.

**Predictive Modeling Fundamentals I**, *Jul 2018*, IBM Cognitive Class.

**Watson Analytics 101**, *Jul 2018*, IBM Cognitive Class.

**Artificial Intelligence Concepts**, *Jul 2018*, IBM.

**Data Science Foundations - Level 1**, *Jun 2018*, IBM.

**Data Science for Business - Level 1**, *Jun 2018*, IBM.

**Digital Analytics & Regression**, *Jun 2018*, IBM Cognitive Class.

**Scala Programming for Data Science - Level 1**, *Jun 2018*, IBM.

**Watson and Cloud Foundations**, *Jun 2018 - Jun 2020*, IBM.

## Technical skills

- Operating Systems: Linux, Windows, iOS
- Primary Programming language: Java (incl. Servlet API/JSP, JDBC), Scala, Python, PHP
- Moderate Knowledge of: R, Javascript, Spark, C++, C#, Android
- RDBMS: MySQL
- IDEs/Tools: Eclipse, IntelliJ, PyCharm, Netbeans, Weka, L<sup>A</sup>T<sub>E</sub>X, gnuplot

## Teaching Assistance

Undergraduate Courses in Athens University of Economics and Business

- Compilers - Spring 2014, Fall 2015, Spring 2015, Fall 2016, Fall 2018

## Languages

English	Certificate of Proficiency, University of Michigan (2006)
German	Goethe-Zertifikat B2 (2016)
Greek	Native