

## Stamatina (Matina) Thomaidou, Ph.D.

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[matinathomaidou.github.io](https://matinathomaidou.github.io)  
Location: Dublin, Ireland

PROFESSIONAL EXPERIENCE **IBM Digital Sales, Senior Data Scientist, Data Science and Optimization Global Team - Innovation Lab (June 2015 - Present)**

### Mission

- Empowering IBM Digital Sales business outcomes using data and analytics to inform decisions. I focus on the development, deployment, scalability, and experimental design of our Data Science insights.

### Key Contributions

- Lead Data Scientist for Digital Sales in Dublin
- Working with sales leaders & management team to develop a portfolio of projects that drives competitive advantage for IBM using marketing and customer analytics
- Project Lead: Developed and scaled product and sales play recommendations for whitespace clients in a global level. Calculation of forward looking potential based on mixed models
- Project Lead: Developed and deployed innovative apps and analytical tools for evidence-based seller skills profiling directly connected with the business combined with personalized training recommendations. Pilot with Latin America sellers. The solution is based on multilevel (mixed) models and we have filed an invention disclosure
- Designed ROI analysis for a certification program to understand the business value
- Deployed account-level insights on the potential for growth and territory segmentation recommendations in Europe
- Delivered personalized territory maps to North America sellers to help focus efforts where the opportunity is
- Deployed and extended the capability of Client - Offering Recommendations based on collaborative filtering and leveraging Apache Spark MLlib
- Recruited and advising mentees
- Empowering our team: Organizing and maintaining our Wiki and GitHub
- Technical Supervisor for IBM Ireland - UCD Smurfit School - MSc Business Analytics Project for 2016 & 2017
- Leveraging: R, R Shiny, SAS, IBM Bluemix & Watson APIs, IBM PureData Netezza Analytics, Apache Spark MLlib

**Accenture Digital, Analytics & Data Management Senior Analyst (October 2014 - May 2015)**

### Key Contributions

- Designed, developed and deployed state-of-the-art, data-driven predictive - descriptive models to solve business problems using statistical modeling and Machine Learning. Contributed to insights from predictive statistical modeling activities that targeted and delivered value to our clients. Created models to interpret data with a view to aid better, more informed decision making using marketing and customer analytics with a focus on Marketing Mix Modeling to provide competitive advantage

### Global Telecommunications Company Client, Digital Marketing & Web Analytics

- Deployed digital solutions that helped clients across 16 countries to optimize the value they derive from their Digital strategies
- Developed and managed various automated web KPI reports for local market reporting to provide country-specific commentary against trends and explain in-depth the digital performance against business objectives
- Performed analysis and KPI assessment for the defined hypotheses and experiments - mixed linear models, regression analysis, clustering
- Monitored and improved digital channel performance with Adobe Reports & Analytics, Adobe Report Builder, Excel, R, and SAS

### Global Retail Company Client, MROI Project

- Assessed the effectiveness of key marketing and trade activities and provided the client with an optimized promotional strategy
- Econometric modeling, attribute regression analysis, short and long term effect, estimation of response curves, optimal duration - frequency for the trade activities, forecasting, mixed linear models, regression analysis, clustering
- Leveraged: SAS, Revolution R, Excel, and OxMetrics

**Microsoft Development Center Norway, Program Manager Intern (June 2014 - August 2014)**

**Office Graph and Delve**

- Won the Ship it! Award (Microsoft Internal Hackathon at Oslo)
- Data analysis with Microsoft Cosmos (Big data analysis platform)
- Leveraged Microsoft BI solutions (SQL Server, OLAP Cubes, Power BI, Power Query, Power Pivot)
- Manipulation of large datasets, both structured and unstructured - Integrated information with C#
- Agile development with Team Foundation Server

**Laboratoire d'Informatique de l'École Polytechnique (LIX), Researcher & Software Engineer (November 2012 - January 2013)**

Extended the capabilities of a prototype Real Time Bidder into a scalable architecture

**Data & Web Mining Group of Athens University of Economics and Business, Ph.D. Researcher (March 2011 - October 2014)**

**Automated Creation, Monitoring, and Optimization of Online Advertising Campaigns**

- Developed a prototype based on Java, JSP, Servlets, MySQL, Google Adwords API, and Python
- The goal was to maximize either landing page traffic or conversion rate - Modeled the budget optimization problem as a multiple-choice knapsack capitalizing on a Genetic Algorithm
- Keyphrase and ad-text generation, background and topic language models, sentiment analysis
- Prediction of the click-through rate, clicks, and impressions using Boosted Regression Trees with R

**Teaching Assistant & Technical Supervisor**

- "Data Science & Web Mining" Fall 2013, Undergraduate Course
- "Machine Learning" Spring 2013, Undergraduate Course
- "Algorithms" Spring 2013, Undergraduate Course
- "Machine Learning" Fall 2011, Postgraduate Course  
Technical supervision of students (db-net-aueb team) for *KDD Cup 2012*: "Predict the click-through rate of ads given the query and user information" - Leveraged Boosted Regression Trees and R on the Tencent dataset
- "Data Structures" Fall 2011, Undergraduate Course
- "Data Mining and Machine Learning" Spring 2011, Postgraduate Course
- Technical supervisor for 3 BSc & MSc Dissertations of our students

**External Reviewer**

- World Wide Web Conference (WWW), 2013
- European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD), 2012
- IEEE/ACM Int. Conference on Advances in Social Networks Analysis and Mining (ASONAM), 2012, 2013, 2014
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2011

**AWARDS & GRANTS**

**Microsoft**

- Ship it! Award (Microsoft Internal Hackathon at Oslo 2014 - Expertify team: "Find the expert")

Athens University of Economics and Business

- Ph.D. Research Fund Heracleitus II *European Union (European Social Fund - ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF)*

Google

- Semi-finalist in the 2011 Google Online Marketing Challenge
- Student Grant for attending Lisbon Machine Learning School 2013, Lisbon, Portugal

National and Kapodistrian University of Athens

- 1st award in the "Business Plan Contest" organized by the National and Kapodistrian University of Athens as well as the Greek Ministry of Education in the context of the "Education and Entrepreneurship" European program (2007)

TU Dortmund University

- Student Grant for attending Resource-aware Machine Learning International Summer School, September 2012, TU Dortmund University, Germany

## PATENTS

Identifying experts and areas of expertise in an organization. (M. Platakis, C. Makris, T. Tonnesen Lied, B. Herstad, S. Thomaidou, S. Zitnik). Issued Apr 24, 2015 Patent issuer and number us US20160314122A1.

AD-MAD software (S.Thomaidou, Ecole Polytechnique - Paris & CNRS). Registered in March 2012 at the French agency for software protection (APP).

## PUBLICATIONS

S. Thomaidou, M. Vazirgiannis, K.Liakopoulos. Toward an Integrated Framework for Automated Development and Optimization of Online Advertising Campaigns. *Intelligent Data Analysis Journal*. Volume 18(6). November 2014.

S. Thomaidou, I. Lourentzou, P. Katsivelis-Perakis, M. Vazirgiannis. Automated Snippet Generation for Online Advertising. *ACM International Conference on Information and Knowledge Management (CIKM'13)*, San Francisco, USA.

S. Thomaidou, K. Leymonis, M. Vazirgiannis. GrammAds: Keyword and Ad Creative Generator for Online Advertising Campaigns. *Digital Enterprise Design & Management Conference (DED&M'13)*, France, Paris.

S. Thomaidou, K. Leymonis, K. Liakopoulos, M. Vazirgiannis. AD-MAD: Integrated System for Automated Development and Optimization of Online Advertising Campaigns. *IEEE International Conference on Data Mining Workshop (ICDMW'12)*, Brussels, Belgium. Demonstration using [Adomaton](#) and [GrammAds](#)

K.Liakopoulos, S. Thomaidou, M. Vazirgiannis. The Adomaton Prototype: Automated Online Advertising Campaign Monitoring and Optimization. *Ad Auctions Workshop, ACM Conference on Electronic Commerce (AAW'12-EC'12)*, Valencia, Spain.

S. Thomaidou, M. Vazirgiannis. Multiword Keyword Recommendation System for Online Advertising. *IEEE/ACM International Conference on Advances in Social Network Analysis and Mining (ASONAM'11)*, Kaohsiung, Taiwan.

## INVITED TALKS

S.Thomaidou. Data Science Challenges for Online Advertising. IWD - Data mini-Conference. Dublin, March 2016.

S.Thomaidou. Impact of technical sales on IBM's odds to win sales. IBM InterConnect 2015 Dublin.

S. Thomaidou, K. Liakopoulos, M. Vazirgiannis. Automatic Advertising Campaign Development. Greek Free / Open Source Software Society (GFOSS) Technical Lab, April 2011. GRNET (Greek Research & Technology Network)

## EDUCATION

**Athens University of Economics and Business**, Athens, Greece

Ph.D., Machine Learning and Data Mining, 2011 - 2014

- Thesis Topic: *Automated Creation and Optimization of Online Advertising Campaigns*
- Advisor: [Prof. Michalis Vazirgiannis](#)
- PhD Committee: [Prof. Kjetil Norvag](#) and Associate Prof. [Ion Androutsopoulos](#)

- Area: Search/contextual advertising, Computational advertising
- Research Group: [Data & Web Mining Group](#)

M.Sc., Information Systems, 2009-2011

- Orientation: Business Information Systems
- Thesis Topic: *Automatic Advertising Campaign Development: Keyword and Ad Creative Generation*
- Advisor: Professor Michalis Vazirgiannis

**National and Kapodistrian University of Athens**, Athens, Greece

B.Sc., Informatics and Telecommunications, 2004-2009

- Orientation: Computer Systems and Applications
- Thesis Topic: *Database design and technical implementation / development of the new website of the Department of Informatics and Telecommunications*
- Advisor: Professor Panagiotis Georgiadis

IBM  
CERTIFICATION  
TECHNICAL  
SKILLS

IBM Big Data Spark Foundations

- R, R Shiny, SAS, SQL, Python, Apache Spark MLlib
- Google AdWords API, Google Analytics
- Java, Unix, Git
- C#, Microsoft Cosmos (Big data analysis platform)
- SQL Server, OLAP, Power BI

LANGUAGES

*Greek*: Native, *English*, *French*