

# CURRICULUM VITAE

## George Tzanis

B.Sc., M.Sc., Ph.D., M.D.

Email: [tzanis@auth.gr](mailto:tzanis@auth.gr)  
[gtzanis@gmail.com](mailto:gtzanis@gmail.com)  
URL: <http://www.gtzanis.gr>

---

### PERSONAL INFORMATION

---

**Date of Birth** May 13th, 1982  
**Place of Birth** Thessaloniki, Greece  
**Military Obligations** Fulfilled (Research and Informatics Corps)

---

### EDUCATION

---

**2016** M.D. Degree, School of Medicine, Aristotle University of Thessaloniki.  
*Grade: "Very Good" 7.80 out of 10.*

**2011** Ph.D. in Computer Science, Department of Informatics, Aristotle University of Thessaloniki.  
*Thesis: "Knowledge Discovery from Biological Data".*  
*Grade: "Honors".*

**2008** M.Sc. in Computer Science, Department of Informatics, Aristotle University of Thessaloniki.  
*Thesis: "Prediction of Coding Region in Biological Sequences".*  
*Grade: "Honors" 9.33 out of 10.*

**2004** B.Sc. in Computer Science, Department of Informatics, Aristotle University of Thessaloniki.  
*Thesis: "Knowledge Discovery in Biological Databases".*  
*Grade: "Honors" 8.72 out of 10.*

---

### PROFESSIONAL AND RESEARCH EXPERIENCE

---

**30/3/2006 – 19/4/2006** Research visit at the Department of Computer Science at Dartmouth College at New Hampshire, U.S.A. for research collaboration with Dartmouth Experimental Visualization Laboratory (DEVLAB).

**10/2004 – 07/2005**  
&  
**06/2007 – 06/2008** E-Learning Software Development and Seminar Presentation in the research program titled "e-Learning Support Center (eLSC) –A.U.Th.'s Central Action" (Operational Programme for Education and Initial Vocational Training – Hellenic Ministry of National Education and Religious Affairs).

**01/2005 – 02/2005** Software Evaluation in the research program titled "An interactive, agent-based, on line edutainment environment to promote European intercultural education and cooperation among citizens of Europe" (Funded by the European Union under the IST program, E-content).

**11/2005 – 03/2007** Software Development in the research program titled "Development of an Intelligent System for the Remote Management of Natural Gas Units" (Operational Programme "Competitiveness", Measure: 4.3, Action: Programme for the Development of Industrial Research and Technology for New Enterprises).

---

## LANGUAGES

---

### Mother Tongue

Greek

### Other Languages

**English:** Fluent Level – First Certificate in English, University of Cambridge

**French:** Basic Level – Lessons attended for six years

---

## DISTINCTIONS

---

- 2010** Scholarship from the Hellenic Association for Artificial Intelligence for the 6th Hellenic Conference on Artificial Intelligence.
- 2008** 3rd Innovative Business Plan Award at the competition “Innovative Ideas in Central Macedonia 2008” organized by Thessaloniki Technology Park / Management & Development Corporation S.A. in the framework of the Regional Innovation Pole of Central Macedonia Project.
- 2006** Scholarship from the research committee of Aristotle University of Thessaloniki, for distinction during the first year of the PhD studentship.
- 2002** Scholarship from the State Scholarships Foundation, for the achievement of the best grade during the first year (2000-2001) of the undergraduate studies program of the Department of Informatics.
- 2000** Entered 4th (out of 70 candidates) at the Department of Informatics of Aristotle University of Thessaloniki.
- 2000** School-leaving certificate from the 32nd Unified Upper Secondary School of Thessaloniki, achieving the best grade (“Honors” 19.5 out of 20).
- 1998** Scholarship from the Ioannis and Vasileia Karagiannis endowment for best grade school-leaving certificate, 4th Lower Secondary School of Harilaou (Grade: “Honors” 19.33 out of 20).
- 

## RESEARCH INTERESTS

---

Machine learning and knowledge discovery in databases with a special focus on biological data. In particular:

- Machine Learning and Knowledge Discovery in Databases
    - Frequent Pattern Mining
    - Classification and Prediction
    - Clustering
  - Bioinformatics
    - Biological Sequence Analysis
    - Gene Expression Analysis
- 

## PUBLICATIONS

---

**Hetero-citations: 127, H-Index: 8**

### Journal Articles

1. Tzanis, G. and Berberidis, C. (2007). Mining for Mutually Exclusive Items in Transaction Databases. International Journal of Data Warehousing and Mining, Idea Group Publishing, 3(3): 45-59.

2. Hatzikos, E., Tsoumakas, G., Tzanis, G., Bassiliades, N., and Vlahavas, I. (2008). An Empirical Study of Sea Water Quality Prediction, *Knowledge-Based Systems*, Elsevier, 21(6): 471-478.
3. Tzanis, G., Kavakiotis, I., and Vlahavas, I. (2011). PolyA-iEP: A Data Mining Method for the Effective Prediction of Polyadenylation Sites, *Expert Systems with Applications*, Elsevier, 38(10): 12398-12408.
4. Tzanis, G., Berberidis, C., and Vlahavas, I. (2012). StackTIS: A Stacked Generalization Approach for Effective Prediction of Translation Initiation Sites, *Computers in Biology and Medicine*, Elsevier, 42(1), 61-69.
5. Tzanis, G. (2014). Biological and Medical Big Data Mining. *International Journal of Knowledge Discovery in Bioinformatics*. 4(1): 42-56.
6. Sarafidis, P.A., Georgianos, P.I., Karpetas, A., Bikos, A., Korelidou, L., Tersi, M., Divanis, D., Tzanis, G., Mavromatidis, K., Liakopoulos, V., Zebekakis, P.E., Lasaridis, A., and Protogerou, A.D. (2014). Evaluation of a Novel Brachial Cuff-Based Oscillometric Method for Estimating Central Systolic Pressure in Hemodialysis Patients. *American Journal of Nephrology*, 40(3): 242-250.

#### Conference Papers

1. Berberidis, C., Tzanis, G., and Vlahavas, I. (2005). Mining for Contiguous Frequent Itemsets in Transaction Databases, In *Proceedings of the IEEE 3rd International Workshop on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications*, Sofia, Bulgaria, 679-685.
2. Tzanis, G., Berberidis, C., Alexandridou, A., and Vlahavas, I. (2005). Improving the Accuracy of Classifiers for the Prediction of Translation Initiation Sites in Genomic Sequences. In *Proceedings of the 10th Panhellenic Conference on Informatics (PCI'2005)*, Volos, Greece, 426-436.
3. Tzanis, G. and Vlahavas, I. (2006). Prediction of Translation Initiation Sites Using Classifier Selection. In *Proceedings of the 4th Hellenic Conference on Artificial Intelligence (SETN'06)*, G. Antoniou, G. Potamias, D. Plexousakis, C. Spyropoulos (Eds.), Springer-Verlag, LNAI 3955, Heraklion, Greece, 367-377.
4. Tzanis, G., Katakis, I., Partalas, I., and Vlahavas, I. (2006). Modern Applications of Machine Learning, In *Proceedings of the 1st Annual SEERC Doctoral Student Conference*, Thessaloniki, Greece.
5. Tzanis, G., Berberidis, C., and Vlahavas, I. (2006). On the Discovery of Mutually Exclusive Items in a Market Basket Database, In *Proceedings of the 2nd ADBIS Workshop on Data Mining and Knowledge Discovery*, Thessaloniki, Greece, 1-12.
6. Tzanis, G., Berberidis, C., and Vlahavas, I. (2006). A Novel Data Mining Approach for the Accurate Prediction of Translation Initiation Sites, In *Proceedings of the 7th International Symposium on Biological and Medical Data Analysis*, Thessaloniki, Greece, 92-103.
7. Tzanis, G., Berberidis, C., and Vlahavas, I. (2007). MANTIS: A Data Mining Methodology for Effective Translation Initiation Site Prediction. In *Proceedings of the 29th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, IEEE*, Lyon, France, 6343-6347.
8. Tzanis, G. and Vlahavas, I. (2007). Mining High Quality Clusters of SAGE Data, In *Proceedings of the 2nd VLDB Workshop on Data Mining in Bioinformatics*, Vienna, Austria.
9. Tzanis, G. and Vlahavas, I. (2007). Accurate Classification of SAGE Data Based on Frequent Patterns of Gene Expression. In *Proceedings of the 19th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2007)*, Patras, Greece, 96-100.
10. Tzanis, G., Kavakiotis, I., Vlahavas, I. (2008). Polyadenylation Site Prediction Using Interesting Emerging Patterns, In *Proceedings of the 8th IEEE International Conference on Bioinformatics and Bioengineering, IEEE*, Athens, Greece, 1-7.
11. Tzanis, G. and Vlahavas, I. (2010). Mining for Mutually Exclusive Gene Expressions, In *Proceedings of the 6th Hellenic Conference on Artificial Intelligence*, Springer-Verlag, Athens, Greece, 255-264.

### Chapters in Edited Volumes

1. Tzanis, G., Berberidis, C., and Vlahavas, I. (2005). Biological Data Mining, Encyclopedia of Database Technologies and Applications, L.C. Rivero, J.H. Doorn, and V.E. Ferraggine (Eds.), IDEA Group Publishing.
2. Tzanis, G., Berberidis, C., and Vlahavas, I. (2009). Machine Learning and Data Mining in Bioinformatics. Handbook of Research on Innovations in Database Technologies and Applications: Current and Future Trends, Ferraggine, V.E., Doorn, J.H., Rivero, L.C. (Eds.), IGI Global.
3. Kavakiotis, I., Tzanis, G., and Vlahavas I. (2014). Mining Frequent Patterns and Association Rules from Biological Data. Biological Knowledge Discovery Handbook: Preprocessing, Mining and Post-processing of Biological Data, M. Elloumi and A.Y. Zomaya (Eds.), Wiley Book Series on Bioinformatics: Computational Techniques and Engineering, Wiley-Blackwell, John Wiley & Sons Ltd., New Jersey, USA.
4. Kavakiotis, I., Tzanis, G., and Vlahavas I. (2014). Polyadenylation Site Prediction using PolyA-iEP Method. In Polyadenylation: Methods and Protocols, Methods in Molecular Biology, J. Rorbach and A. Bobrowicz (Eds.), 1125, 131-140.

---

### **PAPER REFEREE**

---

#### Journals

- International Journal of Pattern Recognition and Artificial Intelligence
- International Journal on Artificial Intelligence Tools
- BioSystems, Elsevier

#### Conference Papers

- 2nd ADBIS workshop on Data Mining and Knowledge Discovery (ADMKD 2006).
- 4th Hellenic Conference on Artificial Intelligence (SETN'06).
- 10th International Conference on Engineering Applications of Neural Networks (EANN 2007).
- 19th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2007).
- 19th European Conference on Artificial Intelligence (ECAI 2010).
- ECML/PKDD 2013 Workshop on Solving Complex Machine Learning Problems with Ensemble Methods (COPEM 2013).

#### Edited Volumes

- Encyclopedia of Database Technologies and Applications, L.C. Rivero, J.H. Doorn, and V.E. Ferraggine (Eds.), IDEA Group Publishing, 2005.
- Handbook of Research on Innovations in Database Technologies and Applications: Current and Future Trends, Ferraggine, V.E., Doorn, J.H., Rivero, L.C. (Eds.), IGI Global, 2009.

---

### **SCIENTIFIC ASSOCIATIONS MEMBERSHIPS**

---

- 2006 – Today** Hellenic Association for Artificial Intelligence
- 2009 – Today** Hellenic Society for Computational Biology and Bioinformatics
- 2005 – Today** Association for Computing Machinery (ACM)  
ACM Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD)
- 2004 – Today** Institute of Electrical and Electronics Engineers (IEEE) - IEEE Computer Society