

Curriculum Vitae

Last Name: Tsoukalas

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Current Employment: Informatics Engineer, Department of Informatics , International Hellenic University

Educational Qualifications

2012-2015 Master's Degree (3 years course program), Information & Communications Systems -Systems Security, Open University of Cyprus, Marks 8.0

2000: BSc in Informatics, Department of Informatics, Technological Education Institute of Athens. Marks: 7.1

1994: Department of Informatics, 1st Technical Lykeion of Patras. Marks 19.9

Professional Qualifications

2002-Present: Application Development (Lead Developer), Systems Administrator, and Database Administrator, Educational/Specialized Technical Laboratory Staff (E.T.E.P.), Department of Informatics, D.P.T. Kavala. He is responsible for: Proxmox Virtualization Platform (Production), Ganeti Cluster Virtualization Platform (Production), Openstack Cloud (Grizzly, Icehouse Edition) (Development mode), LINUX (Ubuntu/Debian) Administration, SAMBA, ORACLE Database Administration, LDAP Admin, DNS Admin, Storage Admin. DevOps (Intermediate Level)

2025: Application Development, Development of a (Custom) Website for the Established Laboratory (I.E.E.S.) of the Department of Informatics (<https://iees.cs.duth.gr>). Main Technologies: Java/Jakarta EE.

2024-25: Application Development, Development of a Generalized (Custom/Generic) Marketplace System with International Specifications. Technologies: Postgres 16/17, Wildfly 32, Java/Jakarta EE 10, Jakarta Faces, Primefaces, Ubuntu Linux v.24, Application Clustering/Database Clustering (Double Clustering) with Data Synchronization, Load Testing/Stress Testing, Load Balancing, Apache JMeter, Wildfly Clustering, Bucardo

2024: Systems Administration, Installation of a Pilot Identity Management (IDM) Infrastructure based on the Keycloak product, Installation of IDentity Provider (IDP)/Broker, Integrate Java/Jakarta EE Web Apps with Open ID Connect (OIDC) and SAML2 Protocols

2023-24: Application Development, Development of a Custom/Generic E-Shop. Technologies: Postgres 16, Wildfly 32, Java/Jakarta EE 10, Jakarta Faces, Primefaces, Ubuntu Linux v.22

2023: Application Development, Development of a Warehouse Management System for Logistics Companies managing Shipments of Shipping Companies. Technologies: Postgres 15/16, Wildfly 29/32, Java/Jakarta EE 10, Jakarta Faces, Pricefaces, Ubuntu Linux v.22, QR Code Label Management, Extensive use of Jasper Reports, JaspersoftStudio, Integration with Exact One ERP via Rest API

2022-Present: Application Development, Development of a Conference Assistant Application to support the conferences of the Department of Informatics, with the ability to support the conferences of all departments of an Academic University. Basic

functions: "Create conferences, Topic Requests, Member Notifications, Reports, History, etc." Main Technologies: Java/Jakarta EE

2020-Present: Application Development, Development of a (Custom) Website for the Postgraduate Department of Informatics "Immersion Technologies - Innovation in Education, Training and Game Design" (<https://imt.cs.duth.gr>). Main Technologies: Java/Jakarta EE

2019-Present: Application Development, Development of a (Custom) Website for the Postgraduate Department of Informatics "Advanced Information and Computer Technologies" (<https://mphil.cs.duth.gr>). Main Technologies: Java/Jakarta EE

2019-Present: Application Development, Development of a (Custom) Website for the Department of Informatics (<https://cs.duth.gr>). Main Technologies: Java/Jakarta EE

2017-: Developer, Development of an Information system for handling the enrolments of the students in the labs of the 10 Departments of TEI of Kavala. The system consists of five subsystems: teacher subsystem, a student subsystem, a synchronization subsystem with federation systems, an Android app module and a Rest & BPM processes back-end subsystem. The system is based on JAVA EE(CDI, Bean Validation, JPA, ORM, MVC, XML and JSON Processing, JSF, Primefaces 6.1), on Wildfly Application Server 10.1, Oracle 11g Database Server, PL/SQL, BPM & BPMN 2, JBPM6, UML, Apache Maven, OpenLDAP-Novell Library, Visual Paradigm CE 12.1, SmartDraw 11, Oracle SQL Developer 17.4, jTDS, JavaMail. The application was installed on a hosted VM Server on Ubuntu 16 hosted at our Ganeti Cluster Virtualization Platform. Project Developed with Netbeans 8.2.

2017: Developer, Portal system: An Integrated Ordering Honey Products Information System was developed. The system consists of two subsystems: a honey-shop owner subsystem, a client subsystem. The system is based on JAVA EE (JSF, Primefaces, etc) on Wildfly Application Server, MySQL, PL/SQL, JasperReports and payment transactions with PayPal Integration (Sandbox). The application was installed on a hosted VM Server on Ubuntu 16.

2015: Developer, Portal system: An Integrated Booking Room Information System was developed. The system consists of three subsystems: a hotel owner subsystem, a client subsystem and an administrator subsystem. The system is based on JAVA EE (JSF, Primefaces, etc) on Wildfly Application Server 9.0.2, MySQL, PL/SQL and payment transactions with EveryPay Integration (Sandbox). The application was installed on a hosted VM Server on Ubuntu 14. Project Developed with Netbeans 8.1.

2014: Developer, Information system for Upgrading Curriculum Programs at the departments of TEI of Kavala. Use of client/server architecture, Use of Microsoft SQL, JAVA, Netbeans IDE 8.0, and also use of the EXTEN XLS library for reading of formatted Excel type files.

2014: Developer, Development of a Windows Application to facilitate/accelerate the import procedure of inventory entries on a Greek system called e-INVENTORY at the public sector.

2014: Developer, Development of a Windows Application to facilitate/accelerate the import procedure of professors on a Greek system called APELLA (elections of Faculty members) at the public sector.

2014: Developer, Development of a Windows application to manage and store system passwords in a secure way using AES 128-bit.

2013-2014: Developer, Development of a computer monitoring distributed system based on multi-agent technology for the needs of the TEI Eastern Macedonia and Thrace. This system monitors the laboratory computers on each department. Remote actions (restart, shutdown, startup, client agent updates) have been intergraded.

2013: Developer: Development of application module for the establishment of a secure communication e-mail channel between two remote nodes using self-certificates with SSL/TLS for two-way authentication. The implementation was done in Java. The open source SubEthaSMTP Library has been intergrade at the server node.

2013: Developer, Development of a Windows Application to facilitate/accelerate the publication of documents on a Greek system called DIAVGGEIA at the public sector.

2012: Developer, Development of Web application module of a photovoltaic systems' company. The module calculates the economic performance photovoltaic system by analyzing cash. The implementation was done in JavaScript / CSS and PHP.

2011: Developer, Development of a verification system co-operating with the EUDOXUS horizontal system for textbooks. This system processes and validates the application forms that are filled and submitted by the students

2010: Developer, Development of a networked information system for handling the enrolments of the students in the labs. Use of Oracle Database Server 11g, Oracle Weblogic Application Server 11g, Oracle JDeveloper11g, and various other technologies/techniques: SQL/PLSQL and Triggers, Java EE, XML, AJAX based on Web 2.0.

TEACHING

2017- : Teaching Fellow, and teaching of various courses: "Introduction to Programming" C++, "Programming Techniques" Java SE, "Object Oriented Programming" Java SE. "Introduction to databases" Oracle SQL/PLSQL , "Special Topics on Databases" Design & Implementation.

2002-2011: Teaching Fellow, and teaching of various courses: Programming I (lab): use of C++ for the assignments, Programming II (lab): use of C++ (advanced course), Database I (lab): use of Oracle SQL, Database II (lab): Oracle PL/SQL & SQL. Network applications (lab), Introduction to database (Theory and lab, Advanced database topics (Theory and lab), Operating systems and programming (lab).

Research projects

2020-2023: JAUNTY –Joint undergraduate courses for smart energy management systems. **I was in charge of the installation of two Ubuntu Linux Servers 20.04. LTS** (1 Server for the base system, and 1 Server for the backup System). **I was in charge of the Implementation of the Virtual Learning Environment.**

2020-2022: T4E, Rapid training of teachers in distance education. **Key point Member. I was in charge of the Implementation of an intermediate system that: 1. Manage Registration Requests of 160000 teachers, 2. Generates 1500 Groups of attendees 3. A gateway between two distant education platforms: E-Class and E-Me.**
Technologies: **Java EE 8, MySQL, Bootstrap, Rest API which serves JSON Objects.**

2019-2021: FUSEGI –Cooperation for fusing skills on Cloud-based Open GeoInformatics: Innovative Environmental Management. **I was in charge of the installation of two Ubuntu Linux Servers 20.04. LTS** (1 Server for the base system, and 1 Server for the backup System). **I was in charge of the Implementation of the Virtual Learning Environment.**

2019-2020: SHERPA Research Project

Collaboration with the European Commission Education, Audiovisual and Culture Executive Agency (EACEA) on strengthening the digital skills of European schools. In the context of the same project, there is close cooperation with the Pedagogical Institute of Cyprus, the

Tallinn University of Estonia, the University of Jyvaskyla Finland - and the National Research Council, Institute for Ed. Tech. ,Italy. **I was in charge of the design of technical architecture of the implemented system. I was in charge of the Database Design of the system. Technologies: UML, Elmasri-Navathe Entity Relational Diagrams**

2013-2015: Installation and configuration of Moodle platform for the sub-project Open Academic Courses of Eastern Macedonian & Thrace Institute of Technology. Consideration and implementation of an interface to interconnect Moodle and E-class eLearning platforms.

2005-7: Developer and researcher, Parallel Content based Cross Language Information Retrieval (PA_CO_CLIR), Archimedes programme.

2005-6: Developer, Department of Industrial Informatics. Development of a text retrieval system for text analysis. Use of Oracle Database Server 9i and Oracle Pro*C/C++, and Microsoft Visual Studio.

2003-4: Developer, Department of Industrial Informatics. Development of a student evaluation system for the Industrial Informatics department. Use of Java (Java 2 Platform, Standard Edition, v 1.4.2) and Oracle 9i Release 2

PUBLICATIONS

Dissertation

“Networking, Databases and security”, TEI of Athens, 9/1998-3/1999, supervised by Professor C. Skourlas.

Research Work – Publications

[1] Vassilis G. Kaburlasos, Catherine C. Marinagi, Vassilis Th. Tsoukalas, “Personalized multi-student improvement based on Bayesian cybernetics”, Computers & Education 51(4), 1430-1449, 2008.

[2] Petros Belsis, Stefanos Gritzalis, Christos Skourlas, and Vassilis Tsoukalas, “Managing Uncertainty in Access Control Decisions in Distributed Autonomous Collaborative Environments”, ASIAN 2007, 261-267

[3] Petros Belsis, Stefanos Gritzalis, Christos Skourlas and Vassillis Tsoukalas, “Design and Implementation of Distributed Access Control Infrastructures for Federations of Autonomous Domains”, TrustBus 2007, 125-134

[4] V.G. Kaburlasos, L. Moussiadis, V.T. Tsoukalas, A. Iliopoulou, T. Alevizos, “Adaptive technological education delivery and student examination based on machine-learning tools,” Supplementary Proc. Intl. Conf. on Artificial Neural Networks & Intl. Conf. on Neural Information Processing (ICANN/ICONIP 2003), Istanbul, Turkey, 26-29 June 2003, pp. 478-481 (invited paper in Special Session SS05: Machine Learning Advances for Engineering Education).

[5] V.G. Kaburlasos, C.C. Marinagi, V.T. Tsoukalas, “PARES: A software tool for computer-based testing and evaluation used in the Greek higher education system”, 4th IEEE International. Conference on Advanced Learning Technologies, Joensuu, Finland, 30 Aug.-1 Sept. 2004.

[6] C.C.Marinagi, V.T. Tsoukalas, V.G. Kaburlasos, “Development and use of a software tool for improving the average student performance in the Greek higher education system”, Frontiers in Education Conference, Savannah, Georgia, 20-23 Oct. 2004.

Educational material

Notes for the following courses:

[1] Web applications (HTML, Common Gateway Interface, etc)

[2] Database design and Implementation (ER model, enhanced ER model, normalization, functional dependencies, db programming, Oracle SQL, PL/SQL&Triggers, visual programming with Java and databases)

[3] Operating system and programming (visual programming, multiprogramming, Inter-process Communication etc).

Languages: English Reading: Very Good, Listening, Writing: Good

Interests: Music, chess, reading (philosophy, psychology, scientific essays)