

Dimitris Liarokapis

dili@uoi.gr

30-2681050323 (office)

Education:

- December 2001 University of Massachusetts Boston, Boston, MA
PhD in Computer Science with research interest in Databases - Dissertation Title: "Testing Isolation Levels of Relational Database Management Systems", directed by Prof. E. O'Neil. Courses included: DATABASE INTERNALS (B-trees, Bitmaps, Concurrency Control, Isolation Levels, OLAP, Data Cube, Predicate Locking, Phantom Problem, Key Range Locking), HIGHER LEVEL LANGUAGES (Java Virtual Machine, Reflection, Metaobject Protocol, CLOS), PARALLEL COMPUTING (data parallel programming, shared memory thread programming and message passing; used Java Threads, HPFortran and Occam), DATA MINING SEMINAR (Mining association rules with the apriori algorithm, Learning Bayesian Networks, etc.)
- May 1991 University of Massachusetts Boston, Boston, MA
MS in Computer Science, 3.92 GPA. Courses included: Advanced Software Engineering stressing Object Oriented Design, Data Base Management and Architecture, Compilers, Computer Networks, Computer Architecture, Digital Image Processing, etc.
- June 1989 University of Patras, Greece
Department of Computer Engineering and Informatics, 5-year degree. Special courses included: Statistics, Queuing Theory, Scientific Computing, Systems Theory, Stochastic Signals, Digital and Analog Electronics, Digital Telecommunications, Parallel Systems, VLSI, etc.

Technical Summary:

Software Knowledge

OS: UNIX, Windows, VMS, and Macintosh.

Languages: Java, SQL, PL/SQL, C, PHP, C++, ADA, Pascal, LISP, FORTRAN, 68000 & 6502 assembly.

Databases: Oracle, ETL, Data Warehousing, TOAD, DB2, SQL Server, MySQL, Informix, ObjectStore, INGRES, Access, Unisys' MAPPER.

Web Servers: Apache Tomcat, JBOSS, LifeRay, WebLogic.

Document Preparation: HTML, XML, MSWord, PW, LaTeX, TeX.

Network Protocols: TCP/IP.

HARDWARE KNOWLEDGE

- Basic sequential and combinatorial logical circuits and lab tools
- Educational microprocessor boards (Rockwell, Motorola)
- PC, Mac, and Workstations (installing and configuring peripherals and expansion cards)

Experience:

September 2012

Present

Technological Educational Institute of Epirus

Arta, Greece

PROFESSOR OF PRACTICE

- Undergraduate courses: **Technologies for Internet Applications** – Covers J2EE technologies (Servlets 3.0 and JSP 2.6) for creating internet applications by using JDBC to connect to MySQL databases. Utilizing the Eclipse IDE. Alternatively course can be taught by using the XAMPP stack. **Computer Network Administration:** Teaching TCP/IP protocols (TCP, IP, ICMP, ARP), standard administrating commands (including ping, tracert, route, netstat, etc) IP Addressing, Network Sub-Netting, Routing, SNMP etc. **Operating Systems:** Introductory course exposing students to the principles of modern operating system concepts: process management

and scheduling, threading, synchronization and mutual exclusion, deadlocks, memory management and virtual memory. The lab introduces students to the Linux command line. **E-Learning Systems:** Introduces students to modern learning theories and the principles of Instructional Design. Students learn how to utilize LMS systems such as Moodle and E-Class for course development and management.

- Graduate Courses: Taught the Operating Systems course in the first 3 cycles of the Graduate Program. Taught part of the Computer Network graduate course (Socket Programming).
- Has served at the Research Committee of TEI of Epirus (Manages the Special Account for Research Funds) (Dec 2016-Oct 2017).
- Acting as Erasmus+ Departmental Coordinator (since Dec 2018). *Erasmus+ is a European program supporting the mobility of students, faculty and staff to participating countries and institutions.*

June 2011

May 2012

IBM

San Diego, CA

DATABASE & SOFTWARE CONSULTANT

- Worked as an Oracle / SQL Server Database / Java Consultant for an Army Logistics Project (Battle Command Sustainment Support System). Developed SQL and PL/SQL extensions for an Oracle Database supporting a Transportation Monitoring System (BCS3-NM) that integrates data feeds from different data vendors. Developed the Schema and Stored Procedures in MS SQL Server for a software deployment monitoring system. Integrated new data xml data feeds by utilizing the apache xml beans framework and Java. Acted as a database administrator by setting up development database servers on Oracle Linux Boxes and restoring production hot back database. Worked on Holistic Review of an Oracle application/database that was transitioned to a new consortium.

March 2008

To February 2011

SCEA (Sony Computer Entertainment of America)

San Diego, CA

SENIOR DATABASE ENGINEER

- Worked on Oracle PL/SQL development, Database Performance Optimizations including partitioning, bulk binding, materialized views and multidimensional arrays. Database Schema Maintenance and Extensions, Business Intelligence and Reporting. Developed best practices and frameworks. Made extensive use of Oracle AWR and ASH reports and SQL Trace to resolve performance issues. Developed very complex queries for business intelligence and identifying and resolving data inconsistencies. Used mainly Oracle 11 and 10. Evaluated EDB (PostgreSQL). Used Cognos for a BI project.
- Major contributor to database problem-free releases of very important titles, by spotting potential performance or data consistency and redundancy issues and providing optimizations, performance evaluation and testing methodologies. I have received management feedback that outcome of certain title releases would have been uncertain without my contribution.

September 2005

To July 2007

Intuit

San Diego, CA

SENIOR DATABASE ENGINEER

- Provided database-engineering support and development for multiple projects including schema creation and maintenance, stored procedure development in PL/SQL, and SQL tuning for back-end systems and on-line applications.
- Major accomplishments included a suite of sql, java, perl and shell scripts (ETL) to facilitate a migration of a SQL Server database to Oracle; major database performance improvements and extensions for an online application that supported com-

pany ratings (utilized materialized views and provided implementation for fast proximity searches); a portable and configurable database installation to support an on-line banking application. Mainly used Oracle 9i and 10g, PL/SQL, TOAD for Oracle (made extensive use of SQL Scanner and Inspector) and TOAD Data Modeler; minor usage of Java and MS SQL Server. (Intuit is the company developing popular software for small businesses such as: QuickBooks, Quicken, TurboTax etc.; it had acquired Digital Insight in Feb 2007 and got involved in On-Line Banking.)

March 2004
To September 2005

Technological Educational Institute of Epirus

Arta, Greece

VISITING ASSISTANT PROFESSOR

Department of Communications, Informatics and Management

- Taught four courses: Internet Programming -- Java: Covered the Java programming language (including packages awt, swing etc). Advanced Internet Programming: Covered java technologies for creating internet applications such as Java Servlets, JSP, JDBC, Tomcat etc. During the course students were involved in a project for building a web application. Electronic Commerce: Taught how to create Electronic Commerce applications by using PHP and MySQL. Presented theoretical aspects of EC such as benefits, strategies for successful sites, Internet advertising etc. Computer Graphics: Covered line drawing algorithms, anti-aliasing, clipping, transformations and projections. For practical exercises we used the SGI OpenGL library and C++.

October 1999
To August 2003

Intuit

Waltham, MA

SOFTWARE CONSULTANT

- Participated in projects related to database support for internet applications, including stored procedure implementation (PL/SQL), database performance measurements and creation of customized database reports, SQL tuning, Data Warehousing.
- Used Oracle 8i, PL/SQL, java, jdbc, servlets, XML and HTML. See more info in detailed section. (Intuit is the company developing popular software for small businesses such as: QuickBooks, Quicken, TurboTax etc.)

July 1999
To September 1999

Frictionless Commerce

Cambridge, MA

SOFTWARE CONSULTANT

- Assisted in evaluating the deployment of an Object Oriented Database System (ObjectStore) for the persistence needs of company' s internet comparative shopping application. My contribution was to implement a port to ObjectStore with a minimal amount of software changes in order to perform comparative measurements between an OODB approach and the RDBMS approach that was used at the moment. Used ObjectStore 6.0, Java 1.2 and the VisualCafe IDE.

January 1999
To July 1999

Plyasys, Inc.

Cambridge, MA

PRINCIPAL SOFTWARE ENGINEER

- Implemented a Graphical User Interface (ACLStudio) for administering ACLBases. ACLBases are Accessor Control List Repositories that are used for Entitlement Management (ie. control of what user can access what object). They use bitmap technology for very fast adjudication of complex predicates (Entitlement Expressions). ACLStudio is a CORBA client to an ACLBase Server and is used to create and delete ACLBases, view the current contents of an ACLBase, create and delete new entities, import and export accessor, accessor lists and objects from/to SQL Tables (by using

JDBC) and ascii files, evaluate current access and perform new entitlements. ACLStudio was implemented purely in Java by using the JBuilder2 IDE.

September 1997
To August 2001

UMASS/Boston

Boston, MA

DATABASE ADMINISTRATOR / RESEARCH ASSISTANT

- Supported DBA needs for classes and projects on several database systems: Oracle, DB2 and Informix.
- Implemented a multithreaded application (HISTEX) for examining the behavior and performance of vendor database systems running under different isolation levels. Used C, embedded and dynamic SQL, stored procedures etc. (NSF grant of Profs P. & E. O'Neil). Participated in an Internet application for creating a Faculty Database (used applets, servlets, Java Web Server and Object Store).

June 1995
To August 1997

True Software (formerly SMDS)

Waltham, MA

SENIOR SOFTWARE ENGINEER

- Participated in all phases of software development.
- Added new features in company's Software Configuration Management (SCM) product (used company's proprietary language Lakota), implemented automated test suites, fixed bugs, performed ports on UNIX and VMS platforms. See more info in detailed section.

August 1994
To December 1994

Software Consultant

Athens, Greece

- Worked as a subcontractor in the automation of the General Store of Aluminium of Greece. It was a multiuser application and needed special attention for handling concurrency issues. Used Unisys' MAPPER.

June 1992
To June 1994

Hellenic Navy General Staff

Athens, Greece

MILITARY SERVICE

- Worked in the Office of Foreign Contracts.
- Used 386/486 PCs with Windows 3.1, and Word for Windows, Excel, and Access, etc., for maintaining information and producing reports regarding the surveillance of contracts, payments and loans and for preparing invitations for bids and other documents.

September 1991
To May 1992

SMDS

Concord, MA

SOFTWARE ENGINEER

- Developed an ADA scanner to extract information (compilation units and dependencies), from ADA sources, related to configuration management.
- Worked in the encapsulation of Aide-de-Camp CM tool, the company's product, in the HP Softbench environment.

January 1990
To May 1991

University of Massachusetts Boston

Boston, MA

RESEARCH ASSISTANT

- Performed research related to digital typography and the psychophysics of visual perception.

- Implemented and maintained software for psychophysical experiments, in Think Pascal, on a Macintosh II.

Educational Projects:

- Participated in the implementation of a prototype for a database system that uses a combination of B-tree and Bitmap indices. The index consists of a B-tree. The nodes of the B-tree based on the cardinality of the indexed values were transformed from RID lists to Bitmaps and reversely. Supported simple select statements and the common boolean operators. Implemented in C (UMASS/Boston 97).
- Worked as a team member to implement an X Window interface for the Internet Statistics Collection Program (NNStat). Implemented in C on Sun 3 & Sun 4. Product provides a network image of local and other hosts displayed in a virtual circle. User can select, remove or rearrange hosts in the image, display a time-series for the traffic of a selected host or line and also see a history time-series over the last one hour. Responsibilities included: planning the project, specifying and analyzing the requirements, testing and documenting the product UMASS/Boston 90).
- Wrote an elementary Pascal interpreter. Implemented: (a) constant and variable declarations of integer, real, char, string and array data types, (b) type checking by constructing and traversing a parse tree, (c) all the basic operations for the data types mentioned above using the Pascal association and precedence relations, (d) the basic statements: assignment, if-then-else, while-loop, for-loop, (e) code simplification and optimization. Used lex, yacc and C. (UMASS/Boston 90).

Student Thesis Supervision:

- “The Design and Development of an Automatic Examination System in Java”, Anastatios Manakos, ATEI of Epirus, Greece, March 2005.
- “The Development of an Ordering System to Support Multiple Stores by using Java Technologies (Servlets & JSP)”, Ionannis Koutroubis, ATEI of Epirus, Greece, September 2007
(*Listing just two among the best ones*)

Publications:

- “Reliability Study of U-type multistage interconnection networks”, Eleftherios Stergiou, Dimitrios Liarokapis, E. Glavas, C. Angelis, S. Margariti, Proceedings of the 3rd International Conference on Reliability Engineering, Nov 24-26 2018, Barcelona, Spain.
- “Creating an Electronic Magazine in WordPress for Promoting the Practical Training of Students”, Dimitrios Liarokapis, Vasilios Papigiotis, Eleftherios Stergiou, Christos Gogos, Proceedings of the International Conference on Information Technologies (InfoTech 2018), Sep 20-21 2018.
- “Does Anonymity in Student Evaluations Matter and How to Preserve it”, Dimitrios Liarokapis, Eleftherios Stergiou, Journal of Modern Education Review, Vol 8, Issue 2, February 2018.
- “Vigorous Distance Learning Applications Using the Stream Control Transmission Protocol”, Eleftherios Stergiou, Dimitrios Liarokapis, Constantinos Angelis, Fotis Varziotis, Science Journal of Education, Vol 5, Issue 6, December 2017.
- ‘Preserving Anonymity in Student Evaluations’, Dimitrios Liarokapis, Eleftherios Stergiou, Actual Problems of Education (MIP 2017) International Scientific and Educational Conference, 1-2 June 2017, Riga, Latvia
- ‘Improving the quality of Distance Learning Applications by Using the Stream Control Transmission Protocol’, Eleftherios Stergiou, Dimitrios Liarokapis, Actual Problems of Education (MIP 2017) International Scientific and Educational Conference, 1-2 June 2017, Riga, Latvia
- ‘Improving the Behavior of Interconnection Networks by Using Multiple Internal Paths and Fan-Outs’, Eleftherios Stergiou, Dimitrios Liarokapis, John Garofalakis, Proceed-

ings of the 22nd IEEE Symposium on Computers and Communications, 3-6 July 2017, Heraklion, Greece.

- 'Reliability Study of Multilayer Multistage Interconnection Networks Equipped with Internal Path Redundancy', Eleftherios Stergiou, Dimitrios Liarokapis, Euripidis Glavas, Georgios E. Rizos and D. C. Vasiliadis, Proceedings of the Tenth International Conference on Communication Theory, Reliability, and Quality of Service (CTRQ), pp. 1-7, IARIA ISBN: 978-1-61208-550-0, 23 - 27 April, 2017, Venice, Italy.
- "Investigating the Optimal Performance of Multicast Communication by Simulation", Eleftherios Stergiou, Dimitrios Liarokapis, Gerasimos Meletiou. Simultech, July 2013
- "Making Snapshot Isolation Serializable", Alan Fekete, Dimitrios Liarokapis, Elizabeth O'Neil, Patrick O'Neil, Dennis Shasha. ACM Transactions on Database Systems Vol. 30, Num 2, June 2005.
- "Obesity and Cardiovascular Disease Risk Factors in Firefighters: A Prospective Cohort Study", E. Soteriades, S. Kales, R. Hauser, I. Kawachi, D. Liarokapis and D. Christiani. Obesity Research, Vol. 13, Num 10, Oct 2005. (Contributed to statistical analysis by using SAS).
- "Prospective Surveillance of Hypertension in Firefighters", E. Soteriades, S. Kales, D. Liarokapis, D. Christani. Journal of Clinical Hypertension. The Journal of Clinical Hypertension, Vol. V, Num V, Sep 2003. (Contributed to statistical analysis by using SAS)
- "Lipid Profile of Firefighters Over Time: Opportunities for Prevention", E. Soteriades, S.Kales, D. Liarokapis, S. Christoudias, S. Tucker, D. Christiani. Journal of Occupational and Environmental Medicine, Vol 44, Num 9, Sep 2002. (Contributed to statistical analysis by using SAS.)
- "Testing Isolation Levels of Relational Database Management Systems", Dimitrios Liarokapis, Doctoral Posters Presentation, VLDB 2002, Hong Kong, Aug 2002.
- "How typeface variation and typographic scaling affect readability in small sizes". Robert A. Morris, Karl Berry, Kathryn A. Hargreaves, Dimitrios Liarokapis. Proceedings of the 7th International Congress on Advances in Non-Impact Printing Technologies, Portland Oregon, Oct.6-11, 1991, sponsored by the Society for Imaging Science and Technology.