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SUMMARY

I have more than 15 years experience in software engineering and system integration using state of the art technologies. A programming language lover (as “prog. languages change the way you think”), fairly passionate about the functional programming and its renaissance in the recent years for building “big data” computational platforms, always intrigued to use statistics for getting insights from data.

EXPERIENCE

Senior Software Engineer, FORTH-ICS

Heraklion, Greece — 2000 - Present
(http://www.ics.forth.gr)

My work mainly focuses on the implementation of health informatics applications and services using well known standards for medical informatics such as HL7 and IHE, the semantic integration and composition of services in state of the art computational environments such as the Grid and the Semantic Web, and the design and implementation of post-genomic data architectures and statistical analysis tools. In the past I have worked in the design and implementation of a service oriented architecture for the realization of the Integrated Electronic Patient Health Record by the means of CORBA and Web Services middleware technologies. Nowadays, my technical interests mostly centre on the use of modern web technologies (HTML5 umbrella of technologies and REST "inspired" integration approaches) and the use of machine learning and statistics for the analysis of "big data" (what is now frequently termed as "data science")

Accomplishments

- Design and implement regional and national level distributed architectures for the management of Electronic Patient Records
- Implementation of medical standards such as IHE Technical Frameworks for the unique identification of patients and the exchange of clinical douments, EPSOS Patient Summary for the exchange of patient summaries across countries, HL7 Clinical Document Architecture (CDA) etc.
- Design state of the art technical architectures for the secure and efficient exchange of biomedical data (clinical and molecular data sets, medical (DICOM) images, etc) and the integration of tools and services that process them.
- Early adoption of middleware, database (e.g .NoSQL), and integration (e.g. Semantic Web, ontologies) technologies
- Participation in more than ten (10) research projects funded by the European Commision, responsible for important technical work packages and project deliverables.

EDUCATION

►Department of Informatics and Telecommunications, University of Athens

Bachelor of Science in Computer Science — 1991 - 1995
(http://www.di.uoa.gr/eng)

The final project was about the implementation of parallel relational database in

the Parsytec GCel 3/512 supercomputer (with 512 cores, state of the art at that time)

►**Department of Informatics and Telecommunications, University of Athens**
Masters in Computer Science — 1996 - 1998

Masters degree on Advanced Information Systems (http://www.di.uoa.gr/eng/postgraduate/eng_specialization_2). The final project was the implementation of a "WWW Spider" that crawls the world wide web trying to enhance the results of web search engines.

►**School of Electronic and Computer Engineering, Technical University of Crete**
Phd Candidate - 2010 - Present

My thesis addresses the elicitation of new biological knowledge from DNA microarrays (gene expression) data using statistical and machine learning techniques and algorithms. I am mostly focused on the identification and characterisation of Circulating Tumor Cells (CTC) for breast cancer patients.

Estimated date of completion: November 2015

SKILLS

Communication:

- Greek (native), English (fluent)
- Good listener, "Stick-to-the-facts" speaker
- Friendly and helpful co-worker

Programming languages:

- Very proficient in C, C++11, Java, and Python.
- Functional programming: Clojure, Lisp, Scheme. Little bit of Haskell and Ocaml.
- Web programming: HTML5, Javascript, Clojurescript

Databases:

- Relational: PostgreSQL, MySQL, SQLite and their query and data manipulation language (SQL)
- Graph: RDF Triplestores (Sesame, Jena) and their query language (SPARQL)
- Document: MongoDB, Cassandra
- Key-Value: Redis

Middleware and integration:

- Classical RPC: CORBA (now obsolete?), Apache Thrift, Avro
- Resource oriented: REST, HTTP-based using JSON or XML
- Message oriented: MQTT, RabbitMQ. Would love to use: Kafka
- Web servers: nginx

"Data science":

- R statistical environment
- Python scikit/learn
- Machine learning techniques: Support Vector Machines, L1/L2 regularization, Trees and Random Forests, Ensemble learning

Editors/ Programming environments:

- Vim, Emacs
- Eclipse
- Rstudio

Operating systems: Linux, Mac

PUBLICATIONS

Available at Google Scholar: https://goo.gl/7OLT0C .