

Pavlos Polydoras  
Imittoy 46, Holargos, 15561  
0030 6948239854  
LinkedIn: [gr.linkedin.com/in/ppolydoras](https://gr.linkedin.com/in/ppolydoras)  
Email: [p.polydoras@yahoo.gr](mailto:p.polydoras@yahoo.gr)

## SUMMARY

Senior software architect, specializing in secure, highly available, distributed systems.

My working experience begun with European research projects mainly revolving around Information Retrieval. In the context of those projects I became familiar with a wide range of computer science areas, from Web Services, Service Composition to Query Processing/Optimization and Artificial Intelligence. As part of my national service, I worked as a software developer in the Information Systems Support Center of the Hellenic army. During the last 10+ years I have been working in the industry both as freelancer and company employee, participating in various enterprise projects.

My engagement in the projects that I worked in, includes virtually all steps of the software life-cycle, from application design, down to implementation, verification and production deployment. Apart from the technical perspective, another substantial benefit came from the very nature of collaboration with numerous partners and organizations which bequeathed to me a set of valuable principles/skills, like team spirit, managerial abilities, respect for colleagues' work; flexibility as far as the working archetype is concerned and even diplomacy regarding co-working interactions.

My goal is to keep participating in challenging, large scale projects, producing essential services and constantly advancing my (technical and non-technical) skills.

*Specialties:* DBMS, JavaEE, Spring, Web Technologies, SOA, Big Data (Apache Spark ecosystem), Cloud (AWS ecosystem), Distributed/Parallel Systems, HA/HP Systems, PKI

## WORKING EXPERIENCE

### *Freelancer*

#### **Senior Software Architect**

**2007 -  
Present**

#### *Technologies:*

- Enterprise: JavaEE, Spring
- BigData: Apache Spark ecosystem
- Cloud: AWS ecosystem
- Workflow Systems

### *Benefits Science Technologies*

#### **Senior Software Architect**

**Apr. 2014 -  
Present**

Benefits Science Technologies (BST) is an analytics based firm bringing value to employers and consultants in the management of employer sponsored benefits plans. BST expertise is in processing data, designing optimal plan solutions, and reporting on the financial and medical aspects of health insurance plan.

*Responsibilities:*

- Software design & implementation lead of Data Lake
- Software design & implementation lead of Big Data ETL services
- Head of New Client Development (ETL customizations per client)
- Head of Automation

*Technologies:*

- Java, Scala, Python
- AWS ecosystem
  - Analytics: EMR, Athena, Zeppelin notebooks, Glue, Data Pipelines, Quicksight
  - Compute: Lambda, Batch, ECS, Elastic Beanstalk
  - Storage: S3, RDS/MySQL, Redshift
  - Security: IAM, KMS
  - Alfresco Activiti BPM
- Databricks Runtime (v3, v4)
- Apache Spark ecosystem

**UBITECH**

**Senior Software Architect**

**Sep. 2010 -  
Mar. 2014**

Project List:

- Secure Civil Status Data and Document Exchange among the Civil Status Authorities of the Autonomous Provinces of Argentina.

The National Registry of Persons (RENAPER) is the national agency that is tasked to register and identify all individuals who are domiciled in the Argentine jurisdiction, wearing a permanent record of the history and current major from birth and through the various stages of life, protecting the right to identity. It is an autonomous and decentralized organism, under the Ministry of Interior and Transportation, through the Secretary of the Interior.

*Responsibilities:*

Core software & security & infrastructure design & implementation  
Technologies: Java Security (Cryptography, PKI, Secure communication, Authentication/Authorization), EJBCA.

- ICCS-CIEC Data Exchange Platform ([ciec-platform.org](http://ciec-platform.org))

ICCS-CIEC is an intergovernmental organisation which aims to facilitate international co-operation in civil-status matters and the exchange of information between civil registrars. The organisation has drawn up 33 conventions for the international exchange of civil-status data or for the issue of civil-status documents to individuals. The conventions are implemented by means of standardised forms.

The ICCS-CIEC Data Exchange Platform intends to be the platform for all participating States, to enable cross-border electronic exchange of civil-status data with standardised applications and documents. It will give public administrations the possibility to exchange civil-status data electronically in a standardised way which will

improve the efficiency of procedures, enable free movement of citizens and reduce fraud.

*Responsibilities:*

Requirements analysis, core software & security & infrastructure design / implementation / testing

*Technologies:* JavaEE, Java Security (Cryptography, PKI, Secure communication, Authentication/Authorization), EJBCA, jBPM, iText.

- Asset Description Metadata Schema Working Group  
(joinup.ec.europa.eu/asset/adms/home): WG member

*Hellenic Army Information Systems Support Center (ΚΕΠΥΕΣ)*

**S/W Developer**

Software development and internal documentation editing for operational systems of the Hellenic army.

**Feb. 2010 -**

**Nov. 2010**

*National & Kapodistrian University of Athens*

**Researcher - S/W Developer**

Software design/implementation and report compilation in various EU project. Areas of expertise: *Information Retrieval, Service Composition, WS Frameworks, Query Processing, Query Optimization, Functional Languages.*

**Nov. 2005 -**

**Feb. 2010**

- D4Science: Distributed colLaboratories Infrastructure on Grid Enabled Technology for Science (70/30/9460).
- D4Science-II (239019)
- Health-e-Child (IST-2004-027749)
- DILIGENT: Digital Library Infrastructure on Grid ENabled Technology (70/3/7430)
- DL.org (231551)

*Synastria Technologies*

**S/W Developer**

Design & Implementation of the web application BROnet Virtual Office, BROnet Hellas.

**Jan. 2007 -**

**Jan. 2008**

*Technologies:* JavaEE (Servlet, JSP), JMS, Hibernate, MySQL, Web Service (Axis), VMWare.

**APPLIED KNOWLEDGE**

• **Programming Languages**

- General Purpose: Java, Scala, C, Common Lisp, Prolog, C++, Python, Scheme, Haskell, Pascal.
- Web: HTML4/5, Javascript, JSP, CSS2/3, DHTMLX, Bootstrap.js.
- XML: XML, XSD, XPath, XQuery, XSLT.
- Semantic: RDF(s), RDF, OWL, SPARQL, Jena, SWRL, Jess.
- Modeling Language: UML
- Other Languages: SQL, PL/SQL, Bash shell script, awk, sed, Yacc/Bison, FLEX,

SMIL, JavaCC.

- **Development Environment / DevOps**
  - IDE: NetBeans, Eclipse, IntelliJ
  - Build: Mvn, Ant
  - Artifact Repository: Artifactory
  - Version Control: Git/GitFlow/Bitbucket, SVN, CVS
  - Testing: JUnit (unit), Mockito (mocks), JMeter (performance), Selenium (Web), Emma, Cobertura, JaCoCo (coverage)
  - CI/CD: Jenkins/Hudson
  - Delivery: Docker
  - Issue Tracking: Jira, Mantis, Bugzilla, Trac
- **Specifications - APIs - Toolkits:**
  - JavaEE 6/7
  - Spring 3.x, 4.x
  - Web Services: WS-\*, SOAP, JAX-WS, JAX-RS, Axis (1.x)
  - SOA: BPMN (Activiti, jBPM), BPEL (activeBPEL, Apache ODE), JBI/ESB (OpenESB, ServiceMix), SCA (Apache Tuscany), Globus Toolkit
  - AWS SDK
  - OS: Advanced Linux C Programming
  - DBs: JDBC, MySQL C API
  - Desktop GUIs: Swing, GTK
  - Testing: JUnit, Selenium
- **Application Servers**
  - Oracle WebLogic 10.3 - 11g
  - Apache Tomcat (Servlet Container): 4.x - 7.x
  - JBoss 4.2.2, 5.1, 6.1
  - GlassFish 2.1
- **DBMS**
  - Oracle 11g
  - MySQL(3.23 - 5.x)
  - Derby (10.1 - 10.3)
  - eXist (1.2)
- **OSs**
  - Linux (Ubuntu, Debian, Amazon, SuSE)
  - Unix (Solaris, Irix)
  - Windows (3.11 - 10)
- **Security**
  - PKI (EJBCA, OpenSSL, PKCS-\*, OpenSC/OpenCT)
  - Java Security (Cryptography, Authentication/Authorization, Secure Communication, PKCS11 API)
- **BigData**
  - Apache Spark ecosystem: Core, SQL (1.3+)
  - HDFS
  - Presto
- **Cloud**
  - AWS: Analytics, Storage, Computing, Security

- **Other dev**
  - Virtualization: VMWare (Web Service SDK for Virtual Center 2)
  - Parallel Programming: MPI 1, 2, OpenMP
- **Project Management**
  - JIRA
  - Teamwork
  - Agile methodology (agileMantis)

## CERTIFICATION

- Oracle 11g DBA OCA

## EDUCATION

*National & Kapodistrian University of Athens, Dept. of Informatics and Telecommunications*  
**M.Sc. in Advanced Information Systems** **2009**  
 Thesis: "SEnSE - Semantic Enabled Search Engine"

*National & Kapodistrian University of Athens, Dept. of Informatics and Telecommunications*  
**B.Sc. in Informatics and Telecommunications** **2004**  
 Thesis: "Ensemble-2: Dynamic Composition of MPMD Programs"

## AWARDS

- Bachelor Thesis publication in university's annual magazine "Best Bachelor/Master Theses" **2005**
- Award of Excellence "First Year Master Studies" **2005**

## TEACHING EXPERIENCE

*National & Kapodistrian University of Athens*

**Thesis Supervisor** - "HERMES: A different approach to service-oriented Registries", student Kllapi Herald. **2008**

Thesis publication: "*HERMES: A different approach to service-oriented Registries*", Kllapi Herald, Paul Polydoras, Yannis Ioannidis, 2<sup>nd</sup> Hellenic Student Conference in Computer Science, 29 Aug. 2008, Samos

**Teaching Assistant** - to Professor George Giftodimos in "Functional Programming", Dept. of Informatics and Telecommunications. **2003 - 2007**  
 Developed syllabus and overall course structure, and administered all grades.

**Teaching Assistant** - to Professor George Giftodimos in "Dynamic Programming Environments", Interdisciplinary Program of Graduate Studies in Basic and Applied Cognitive Science, Dept. of Philosophy & History of Science. **2003**  
 Collaborated on curriculum and exam development, met with students upon request. Developed weekly lab practicum.

**Teaching Assistant** - to Professor Alex Delis in "Operating Systems", Dept. of Informatics and Telecommunications. **2005-2008**  
 Collaborated on curriculum and exam development, met with students upon request.

**Teaching Assistant** – to Professor Yiannis Kotronis in “Data Structures”, **2005**  
Dept. of Informatics and Telecommunications.  
Collaborated on curriculum and exam development, met with students upon request.

## PUBLICATIONS AND PAPERS

- Yiannis Cotronis, Paul Polydoras, “Ensemble-2: Dynamic Composition of MPMD Programs”, Lecture Notes in Computer Science, Volume 3666, Oct 2005, pp 343-250.
- Fabio Simeoni, Leonardo Candela, George Kakaletris, Mads Sibeko, Pasquale Pagano, Giorgos Papanikos, Paul Polydoras, Yannis Ioannidis, Dagfinn Aarvaag, Fabio Crestani, *A Grid-Based Infrastructure for Distributed Retrieval*. ECDL 2007: 161-173
- Evangelos Floros, George Kakaletris, Paul Polydoras, Yannis Ioannidis, *Query Processing over the Grid: The Role Of Workflow Management*, Grid Computing Achievements and Prospects, Spring US, July 11, 2008, pp. 1-12.
- *Building Scientific Virtual Research Environments in D4Science*, Paul Polydoras, ECDL 2008, Aarhus, Denmark.
- Manolis M. Tsangaris, George Kakaletris, H. Kllapi, Giorgos Papanikos, Frangiskos Pentaris, Paul Polydoras, E. Sitaridi, Vassilis Stoumpos, Yannis E. Ioannidis, *Dataflow Processing and Optimization on Grid and Cloud Infrastructures*, IEEE Data Eng. Bull. 32(1): 67-74 (2009).

## LANGUAGES

- Greek – native language
- English
  - Certificate of Proficiency in English, University of Michigan, March 2002.
  - First Certificate in English, University of Cambridge, June 1994.