

Evangelos Pafilis, PhD

Curriculum Vitae



Date of birth: May 1978, Marital status: Single, Nationality: Greek

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Linked  <http://www.linkedin.com/in/evangelospafilis>

Education

PhD Bioinformatics (2004 – 2009, achieved *Magna cum Laude*)

EMBL (European Molecular Biology Laboratory) – University of Heidelberg, *Germany (joint PhD)*

Thesis: *Web-based data integration and text mining techniques to accelerate biomedical research*

Supervisor: Dr. Reinhard Schneider, University advisor: Prof. Roland Eils

Mark: 1.75, German grading system

Funding: EMBL PhD Fellowship

MRes Bioinformatics (2002 – 2003, achieved Distinction)

University of Glasgow, Scotland

Thesis: *Visualisation Mechanisms supporting Genotype Analysis*

Supervisor: Dr. Ela Hunt, Dept of Computing Science

BSc Biology, 1998 – 2002, University of Crete, Greece, Grade 76.1%,

Professional Experience

Post-doctoral Researcher (2011 – present)

Institute of Marine Biology and Genetics

Hellenic Center of Marine Research, Crete, Greece

Project: *MARBIGEN Supporting research potential for MARine BIodiversity and GENomics in the Eastern Mediterranean*

Supervisors: Dr. Christos Arvanitidis, Dr. Antonios Magoulas (Coordinator)

Funding: EU FP7 REGPOT 2010-1

Post-doctoral Researcher (2009 – 2010)

Faculty of Medicine, University of Crete, Greece

Project: *Development of an Integrated Computer System for Text Mining Biomedical Databases*

Supervisors: Dr. Ioannis Iliopoulos, Dr. Vasilios Promponas (Uni of Cyprus, Nicosia)

Funding: Cyprus Research Promotion Foundation

Research Assistant (2003 – 2004)

Dept of Computing Science, University of Glasgow, Scotland

Project: *XML TEchnologies for the discovery of Cancer Treatment (XTECT)*

Supervisors: Dr. Ela Hunt, Dr. John Wilson (University of Strathclyde, Scotland)

Funding: Carnegie Trust

Research Internships (July – Aug 1999 & July 2001)

Institute of Marine Biology Crete (IMBC), Heraklion, Crete, Greece

Project: *General circulation and advection/diffusion models of the Cretan sea*

Supervisor: Dr. George Triantafyllou

Honours and Awards

- **1st place Award**, the Reflect team in: *The Elsevier Grand Challenge: Knowledge Enhancement in the Life Sciences* (<http://www.elseviergrandchallenge.com/>)
- EMBO Short Term Fellowship (356-2011) to visit the Novo Nordisk Foundation Center for Protein Research in Copenhagen, Denmark (Nov – Dec 2011)
- The Reflect system has been [adopted by the Elsevier's flagship Cell journal](#)
- PhD in Bioinformatics with *magna cum laude*
- EMBL PhD Fellowship
- MRes in Bioinformatics with Distinction

Expertise

Information Technology

text mining (named entity recognition, document similarity, Vector Space Model, document clustering, co-occurrence analysis, automated ontology generation)

web application development (browser extensions, web 2.0 applications)

data integration and database development (requirements capture, data modelling, relational algebra, database indexing, web services, scientific workflows, data standardization and exchange)

data visualisation (data clustering, large scale knowledge networks, interactive-graph based visualisation, knowledge discovery by visual concept association)

Computational Biology

single nucleotide polymorphisms, systems biology, linking biology and chemistry, biomedical literature processing, biomedical knowledge network generation, in-depth knowledge of biological databases and data integration platforms

Field-work Skills

Sampling and sorting of Polychaetes in lagoon environments

Technical Skills

Advanced: Java, Javascript, HTML, XML, AJAX, Drupal, Perl, CGI, BioPERL Java Servlets, JDBC, AXIS, JAX-WS, WSDL, WS-I, SRS, SRS WS Objects, Microsoft Access, MySQL, Oracle, Berkeley DB, Office packages

Adequate: Clustering algorithms

Entry Level: Hibernate, SPRING, Cytoscape, MATLAB, Statistica

Operating Systems: Administrator: UNIX, MacOS, RedHat, SUSE, CentOS, Windows

Security: Administrator: Content filtering, URL blacklisting, DDoS prevention, Firewall

Bioinformatics: Bioalma, Novoseek, Taverna, Arena3D, Taverna, GCG 'Wisconsin' package, NCBI and EBI databases, ClustalX, Genetree, Nix Analysis, Rasmol, SwissPDBViewer

Languages

English (Excellent understanding, speaking and writing)

German (Good understanding and speaking, basic writing)

Greek (native speaker)

Career Development Training

Teacher's Courses Attended

- Train The Trainer (May 2008)
- Effective Writing (Dec 2007)

Computational Biology Courses Attended

- Introduction to Systems Biology (HCMR Crete, Nov 2011)
- Exploration and Analysis of Protein-Protein Interactions tutorial (ECCB, Sept 2008)
- Semantic Mining in Bio-Medicine tutorial (SMBM, Apr 2006)
- eProtein Scientific Meeting and Workshop (Apr 2006)
- Scientific Training at Bioalma (<http://bioalma.com/>), Spain (Sept 2005)
- EBI PhD Student Bioinformatics course (Oct 2005)
- EMBL PhD Training course (Autumn 2004)

Information Technology Courses Attended

- Developing Enterprise Java Applications with Spring and Hibernate (May 2008)

Non-Scientific Training

- Psychological support help-line assistant (Oct 2009 – Feb 2010)
Advising and assisting young people to overcome stress and anxiety

Collaborations

Involved in:

- [Euromarine: from genes to ecosystems](#) (FP7-Environment)
and in particular in WP4: Scientific Data Integration
- [ViBRANT: Supporting biodiversity research communities](#) (FP7 e-infrastructure)
and in particular in [WP8. Ecological and conservation data mobilisation](#)
- [EMBRC: European Marine Biological Resource Centre](#) (FP7 Capacities)
and in particular in WP2: WG3 Omics Technologies

Member of:

- the [Biohackathon Consortium](#) of Bioinformatics web-services providers and application developers
- the Hellenic Society for Computational Biology and Bioinformatics ([HSCBB](#))

Portfolio

- Reflect: <http://reflect.ws>
- OnTheFly: <http://onthefly.embl.de>
- bioTextQuest: <http://biotextquest.ucy.ac.cy>

Talks

- *OnTheFly 2.0: A Service to automatically annotate files and extract biological information.* HSCBB October 2011, Patras, Greece
- *Web-based data integration and text mining to accelerate molecular biology research.* Spanish National Cancer Research Center, February 2011, Madrid, Spain
- *Automated annotation of scientific data and documents.* HSCBB October 2010, Alexandroupoli, Greece
- *TextQuest: a biomedical text mining suite for concept discovery.* HSCBB October 2010, Alexandroupoli, Greece
- *Web-based named entity recognition and data integration to accelerate molecular biology research.* Hellenic Center for Marine Research, March 2009, Heraklio, Greece
- *Reflect and OnTheFly, automated annotation of web sites and documents.* HSCBB October

2008, Thessaloniki, Greece

- *Reflect: Automatic annotation of biological entities in web pages*. EEBE 2008, Thessaloniki, Greece
- *Employing programmatic access to SRS to annotate biological entities*. Hellenic Bioinformatics & Medical Informatics Meeting, October 2007, Athens, Greece
- *Employing programmatic access to SRS to annotate biological entities*. in *Deploying Web Services for Biological Sequence Annotation* EMBRACE workshop, May 2007, Geneva, Switzerland

Given Courses

- [Introduction to Programming Using Python](#), June 2011
6 * 3 hour-session course introducing basic programming concepts to biologists
Hellenic Center of Marine Research, Crete, Greece
- [Automated annotation of scientific data and documents](#) in:
 - [Mining The Biomedical Literature Workshop](#), University of Cyprus, March 2011, Nicosia, Cyprus
 - MSc in Molecular Biology – Biomedicine, University of Crete, January 2011, Heraklio, Crete, Greece
- *Document clustering of Medline abstracts for concept discovery in molecular biology* in:
 - [Mining The Biomedical Literature Workshop](#), University of Cyprus, March 2011, Nicosia, Cyprus
 - MSc in Molecular Biology – Biomedicine, University of Crete, January 2011, Heraklio, Crete, Greece
- *Reflect and OnTheFly: Automatic annotation of biological entities in web pages and scientific documents* in:
 - MSc in Bioinformatics, University of Athens, May 2009, Athens, Greece
- *Reflect: Automatic annotation of biological entities in web pages* in:
 - MSc in Bioinformatics, University of Athens, May 2009, Athens, Greece
 - Exploring Protein Modular Architecture course, EMBL, February 2008, Heidelberg, Germany

Peer Review Activities

- Journal reviewer for [BMC Bioinformatics](#), [Frontiers in Systems Physiology](#)

Peer Reviewed Articles

- [Engaging the broader community in biodiversity research: the concept of the COMBER pilot project for divers in ViBRANT](#). Arvanitidis, C, Faulwetter S, Chatzigeorgiou G, Penev L, Bankí O, Dailianis T, **Pafilis E**, Kouratoras M, Chatzinikolaou E, Fanini L *et al.* (2011). **Zookeys**. 2011, 150:211-219.
- [BioTextQuest: a web-based biomedical text mining suite for concept discovery](#). Papanikolaou, N, **Pafilis E**, Nikolaou S, Ouzounis CA, Iliopoulos I, Promponas VJ. (2011). **Bioinformatics**, 2011, 27(23):3327-3328.
- [Reflect: Augmented Browsing for the Life Scientist](#). **Evangelos Pafilis**, Sean I. O'Donoghue, Lars Jensen, Heiko Horn, Michael Kuhn, Nigel Brown, Reinhard Schneider. (2009) **Nature Biotechnology**, 2009, 27, 508-510
- [Reflect: a practical approach to web semantics](#). Sean I. O'Donoghue, Heiko Horn, **Evangelos Pafilis**, Sven Haag, Michael Kuhn, Venkata P. Satagopam, Reinhard Schneider, Lars J. Jensen. (2010) **Journal of Web Semantics**, 2010, ISSN 1570-8268

- [OnTheFly: A Tool for automated document-based text annotation, data linking and network generation](#). Georgios A. Pavlopoulos, **Evangelos Pafilis**, Michael Kuhn, Sean D Hooper, Reinhard Schneider. (2009) **Bioinformatics** 2009, Apr 1;25(7):977-8
- [The DBCLS BioHackathon: standardization and interoperability for bioinformatics web services and workflows](#). Toshiaki Katayama *et al.*, The DBCLS BioHackathon Consortium. (2010) **Journal of Biomedical Semantics**, 2010, 1:8
- [Arena3D: Visualization of Biological Networks in 3D](#). Georgios A. Pavlopoulos, Sean I. O'Donoghue, Venkata P. Satagopam, Theodoros Soldatos, **Evangelos Pafilis**, Reinhard Schneider. (2008) **BMC Systems Biology**, 2008, 2:104
- [Experience using web services for biological sequence analysis](#). Stockinger H, Attwood T, Chohan SN, Cote R, Cudre-Mauroux P, Falquet L, Fernandes P, Finn RD, Hupponen T, Korpelainen E, Labarga A, Laugraud A, Lima T, **Pafilis E**, Pagni M, Pettifer S, Phan I, Rahman N. (2008) **Briefings in Bioinformatics**, 2008, 9(6):493-505
- [Development of SRS.php, a SOAP-based library for data acquisition from integrated biological databases](#). Barbosa-Silva, A., Ortega, J. M., **Pafilis, E.**, Schneider, R. (2007) **Genetics And Molecular Research**, 2007, 6(4):1142-1150
- [Index-Driven XML Data Integration to Support Functional Genomics](#). Ela Hunt, **Evangelos Pafilis**, Inga Tulloch and John Wilson. (2004). **Proceeding of the International Workshop on Data Integration in Life Sciences, DILS'04**, Lecture Notes in Computer Science 2994. pp95-109

Book Chapter

- *Automated Annotation of Scientific Documents: Increasing Access to Biological Knowledge*. **Pafilis, E**, Horn H, Brown NP. (submitted) To appear within 2012 in Wiley's **Biological Knowledge Discovery Handbook: Preprocessing, Mining and Postprocessing of Biological Data**

Posters

- *OnTheFly 2.0: A Service to automatically annotate files and extract biological information*. HSCBB 2011, Patras, Greece, Pafilis *et al.*
- *wwwTextQuest: A Biomedical text mining suite for concept discovery*. HSCBB 2010, Alexandroupoli, Greece, Papanikolaou, Pafilis *et al.*
- *Reflect: improving how biological research is communicated*. ISMB 2010, Boston, USA, O'Donoghue *et al.*
- *Visualization and Data Integration Techniques in Systems Biology*. HSCBB 2009, Athens, Greece, Pavlopoulos *et al.*
- *Unified access to bioinformatic resources: SRS, Biomart and EB-Eye*. ECCB 2008, Italy, Labarga *et al.*
- *Reflect and OnTheFly, automated annotation of web sites and documents*. HSCBB 2008, Thessaloniki, Greece, Pafilis *et al.*
- *Reflect: automated markup of biological terms in web pages*. EEBE 2008, Thessaloniki, Greece, Pafilis *et al.*
- *Cross-discipline knowledge and data integration*. ISMB 2007, Wien, Austria, Pafilis *et al.*
- *Cross-discipline knowledge integration*. ECCB 2006, Eilat Israel, Pafilis *et al.*
- *XTeCT, Using XML Technology to enhance the search for treatment targets, a data integration project*. ISMB 2004, Glasgow, UK, Pafilis E *et al.*

Referees

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