

## Work Experience

<b>Software Development Engineer</b>	<b>Amazon Development Centre, London, UK</b>	<b>Sep 2015 — Present</b>
<ul style="list-style-type: none"> <li>Member of the LOVEFILM By Post rental service team. LOVEFILM allows customers to rent Movies and TV seasons on DVD and Blu-ray by post (<a href="https://www.amazon.co.uk/lovefilm">https://www.amazon.co.uk/lovefilm</a>).</li> <li><b>Amazon Web Services Certifications</b> <ul style="list-style-type: none"> <li>AWS Certified Developer Associate (AWS-ADEV-3263)</li> <li>AWS Certified Solutions Architect Associate (AWS-ASA-17150)</li> </ul> </li> </ul>		
<b>Software Engineer</b>	<b>Funifi Ltd, Cyprus</b>	<b>Sep 2014 — Sep 2014</b>
<ul style="list-style-type: none"> <li>Refactored server-side code (NodeJS), extended the existing REST API with new functionality for the upcoming Funifi store and started the implementation of an administration web dashboard using AngularJS.</li> </ul>		
<b>Software Development Engineer</b>	<b>Amazon Development Centre, London, UK</b>	<b>Jun 2014 — Aug 2014</b>
<ul style="list-style-type: none"> <li>Member of the LOVEFILM By Post rental service team as summer intern.</li> <li>Designed and implemented an internal service that automates the printing process for the labels of envelopes sent to customers containing their rented DVD or Blu-ray titles.</li> </ul>		
<b>Software Engineer</b>	<b>Data Management Systems Laboratory, UCY</b>	<b>Jun 2013 — Jun 2014</b>
<b>AnyPlace: Indoor Positioning and Navigation System for Big Data</b>		
<ul style="list-style-type: none"> <li>Developed a complete architecture for an Indoor Positioning and Navigation system that provides a Web2.0 API for 3rd-party clients backed by a NoSQL datastore (<a href="http://anyplace.cs.ucy.ac.cy">http://anyplace.cs.ucy.ac.cy</a>).</li> <li>Implemented an Android app that offers real-time positioning and navigation indoors, and a web-based application developed using Google Dart that provides similar services through any HTML-5 compliant browser.</li> <li>Designed &amp; Implemented a Wi-Fi RSS-based radio map construction algorithm that can filter out useless Access Points and erroneous or unnecessary Wi-Fi fingerprints using the Hadoop – Map Reduce framework.</li> </ul>		
<b>Special Scientist, Intern</b>	<b>Data-Driven Multithread Research Laboratory, UCY</b>	<b>May 2012 — Aug 2012</b>
<ul style="list-style-type: none"> <li>Developed a plugin for Eclipse IDE to provide content assistance and custom pre-processing for an in-house language.</li> </ul>		
<b>Software Developer, Intern</b>	<b>Computer Graphics Laboratory, UCY</b>	<b>Dec 2011 — Jan 2012</b>
<ul style="list-style-type: none"> <li>Imported crowd movement simulation data and presented them in a realistic 3D stage using 3D figures - <i>Unity3D</i></li> <li>Represented the lab in CS Open Day 2012, with two games developed using Unity3D and Microsoft KINECT sensor.</li> </ul>		
<b>Education</b>		
<b>Oxford, UK</b>	<b>University of Oxford</b>	<b>Sep 2014 — Sep 2015</b>
<ul style="list-style-type: none"> <li>Master of Science in Computer Science, <i>Grade: Distinction</i></li> <li>Thesis: <i>Single-round vs Multi-round Distributed Query Processing in Factorised Databases</i> Designed and implemented in C++ a <i>distributed query engine</i>, coined D-FDB, that evaluates join queries in a distributed setting. In contrary to traditional systems that use flat relational tables, D-FDB uses data factorizations (f-representations) end-to-end exploiting their theoretical size-bounds against flat data to minimize the total query execution time. Additionally, I developed several serialization and bit-compression techniques to efficiently transmit data factorizations over the network whilst retaining the factorization compression levels.</li> <li><i>Coursework</i>: Concurrent Algorithms &amp; Data Structures (Scala), Computer Security, Functional Programming (Haskell), Concurrent Programming (Scala), Database Systems Implementation, Theory of Data and Knowledge Bases</li> </ul>		
<b>Nicosia, Cyprus</b>	<b>University of Cyprus, UCY</b>	<b>Sep 2010 — Jun 2014</b>
<ul style="list-style-type: none"> <li>Bachelor of Science in Computer Science, <i>GPA: 9.41 /10 (Ranked 1st of class)</i></li> <li>Thesis: <i>AnyPlace: Indoor Positioning and Navigation System for Big Data</i> as described in <i>Work Experience</i></li> <li><i>Coursework (only selected courses)</i>: Databases, Data Structures and Algorithms, Algorithms and Complexity, Distributed Algorithms, Parallel Algorithms, Computer Architecture, Systems Programming, Parallel Processing, Internet Technologies, Computer Networks, Data mining in the Web</li> </ul>		
<b>Lausanne, Switzerland</b>	<b>Ecole Polytechnique Federale de Lausanne, EPFL</b>	<b>Sep 2013 — Jan 2014</b>
<ul style="list-style-type: none"> <li>Erasmus Student for ONE (1) semester, Department of Computer Science</li> <li><i>Coursework</i>: Software Engineering, Concurrent Algorithms, TCP/IP Networking, Program parallelization on PC clusters (MPI, OpenMP, DPS)</li> </ul>		

## Languages & Technologies

- Programming / SDKs*: C, C++, Java, Scala, Google Go, Android, Hadoop framework
- Web*: Google Dart, HTML5, CSS & SASS, Javascript (ES5, ES6, Typescript), AngularJS + AngularDart, ReactJS

## Other Technical Experience

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### Projects

- **Personal Website (2008 – Present):** Personal website and blog (<https://lambrospetrou.com>)
- **ACM SIGMOD 2015 Programming Contest:** Implemented a database management system that evaluated thousands of validation requests each with a set of Boolean Conjunctive Queries (extended with mathematical and logical operators) against a constantly modified database (<http://db.in.tum.de/sigmod15contest/leaders.html>)
- **ACM SIGMOD 2014 Programming Contest:** Implemented a social network analysis system that responded to numerous Top-K queries (<http://www.cs.albany.edu/~sigmod14contest/leaders.html>)
- **ACM SIGMOD 2013 Programming Contest:** Implemented a high-throughput streaming document filtering system using a dynamic set of exact and approximate continuous keyword match (<http://sigmod.kaust.edu.sa/leaderboard.html>)

### Awards & Achievements

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- Nominated for one of the few HEFCE scholarships for graduate studies at University of Oxford, UK (Fall 2014)
- Nominated for a Fulbright Student Scholarship for graduate studies in USA (Fall 2014)
- ACM SIGMOD 2015 Programming Contest, ranked *1st nationwide (Cyprus & UK)* and *5th worldwide* among 38 teams. Selected as one of the finalists to present our solution in ACM SIGMOD conference in Melbourne, Australia
- ACM SIGMOD 2014 Programming Contest, ranked *1st nationwide* and 9th worldwide among 33 teams
- ACM SIGMOD 2013 Programming Contest, ranked *1st nationwide* and 10th worldwide among 55 teams
- Graduated Saint George Lyceum - Lakatameia, Nicosia, Cyprus, with excellence award (2005-2008) – GPA: 19.67 /20
- Promoted to Second Lieutenant of Infantry during my two years of obligatory army service (2008-2010)

### Publications

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- **Demo paper:** "*Anyplace: A Crowdsourced Indoor Information Service*", K.Georgiou, T.Constambeys, C.Laoudias, **L.Petrou**, G.Chatzimilioudis and D.Zeinalipour-Yazti "Proceedings of the 16th IEEE International Conference on Mobile Data Management" (MDM '15), Pittsburgh, Pennsylvania, USA, June 15-18, 2015
- **Demo paper:** "*Crowdsourced Indoor Localization and Navigation with Anyplace*", **L.Petrou**, G.Larkou, C.Laoudias, D.Zeinalipour-Yazti and C.G.Panayiotou "Proceedings of the 13th International Conference on Information Processing in Sensor Networks" (IPSN '14), Berlin, Germany, April 15-17, 2014
- **Demo paper:** "*Anyplace: Indoor Positioning and Navigation in the Big-Data Era*", **L.Petrou**, G.Larkou, C.Laoudias, D.Zeinalipour-Yazti and C.G.Panayiotou "Proceedings of the 4th International Conference on Indoor Positioning and Indoor Navigation" (IPIN '13), Montbéliard-Belfort, France, October 28-31, 2013

### Interests

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- Have played volleyball for 10 years in Cyprus.
- Practised Karate for 8 years, where I developed self-control and the ability to remain calm in obnoxious situations.