# **Apostolos Pyrgelis**

#### PERSONAL DATA

PLACE AND DATE OF BIRTH: Marousi, Athens, Greece | 1st of December, 1985

CITIZENSHIP: Greek

ADDRESS: University College London, Gower Street, WC1E 6BT, London, UK

MOBILE PHONE: +44 7470350878

EMAIL: apostolos.pyrgelis.14@ucl.ac.uk

#### **EDUCATION**

MAY 2015 - Pursuing a Phd in Computer Science at the **Information Security** 

Group (InfoSec) at the Department of Computer Science (CS-

UCL), University College London (UCL), United Kingdom

PROJECT TITLE: Secure Collaborative Analytics | Advisor: Dr. Emil-

iano De Cristofaro, Second Advisor: Dr. Gordon Ross

OCT 2009 - MAR 2012 Master's Degree in Computer Science and Engineering at the **Department of Computer Science and Engineering (CEID)**, Univer-

sity of Patras, Greece

THESIS: Development of Cryptographic Algorithms for Heterogenous Wireless Sensor Networks | Advisors: Prof. Paul Spirakis, Prof.

Yannis Stamatiou, Dr. Ioannis Chatzigiannakis

CERTIFICATE DEGREE: "Excellent"

JAN 2009 - JUN 2009 Student at the Department of Computer Science and Engi-

neering (CSE-TKK), Helsinki University of Technology, Finland

(through the student exchange program Socrates/Erasmus)

SEP 2003 - SEP 2009 Diploma in Computer Science and Engineering at the Depart-

ment of Computer Science and Engineering (CEID), University

of Patras, Greece

THESIS: Development of a Cryptographic Protocol Using Elliptic Curves for Wireless Sensor Networks | Advisors: Prof. Paul Spirakis,

Dr. Ioannis Chatzigiannakis, Dr. Vasiliki Liagkou

CERTIFICATE DEGREE: 7,91 / 10

SEP 2000 - JUNE 2003 Anavrita Experimental Highschool, Marousi, Athens

CERTIFICATE DEGREE: 18,9 / 20

#### **PUBLICATIONS**

Apostolos Pyrgelis, Carmela Troncoso and Emiliano De Cristofaro, **Knock Knock, Who's There? Membership Inference on Aggregate Location Data**, in Proceedings of the 25th

Network and Distributed System Security Symposium (NDSS 2018), San Diego, California,

USA, 2018

Apostolos Pyrgelis, Carmela Troncoso and Emiliano De Cristofaro, **What Does The Crowd Say About You? Evaluating Aggregation-based Location Privacy**, in 17th Privacy Enhancing Technologies Symposium (PETS), Minneapolis, Minnesota, USA, 2017 | Details

Apostolos Pyrgelis, Emiliano De Cristofaro and Gordon Ross, **Privacy-Friendly Mobility Analytics using Aggregate Location Data**, in 24th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, Burlingame, California, USA, 2016 | Details

Ioannis Chatzigiannakis, Andrea Vitaletti and Apostolos Pyrgelis, **A privacy-preserving** smart parking system using an IoT elliptic curve based security platform, in Journal of Computer Communications, 2016

Vasiliki Liagkou, George Metakides, Apostolos Pyrgelis, Christoforos Raptopoulos and Yannis Stamatiou, Privacy Preserving Course Evaluations in Greek Higher Education Institutes: an eParticipation case study with the empowerment of Attribute Based Credentials, in Annual Privacy Forum, Limassol, Cyprus, 2012

Ioannis Chatzigiannakis, Apostolos Pyrgelis, Paul Spirakis and Yannis Stamatiou, Elliptic Curve Based Zero Knowledge Proofs and their Applicability on Resource Constrained Devices, in Mobile Adhoc and Sensor Systems (MASS), Valencia, Spain, 2011 | Details

Dimitrios Amaxilatis, Ioannis Chatzigiannakis, Shlomi Dolev, Christos Koninis, Apostolos Pyrgelis and Paul Spirakis, **Adaptive Hierarchical Network Structures for Wireless Sensor Networks**, in 3rd ICST International Conference on Ad Hoc Networks, Paris, France, 2011

Details

Tobias Baumgartner, Ioannis Chatzigiannakis, Sandor Fekete, Christos Koninis, Alexander Kröller and Apostolos Pyrgelis, **Wiselib: A Generic Algorithm Library for Heterogeneous Sensor Networks**, in 7th European Conference on Wireless Sensor Networks (EWSN), Coimbra, Portugal, 2010

Details

#### **AWARDS**

FEB 2018	NDSS 2018 Distinguished Paper Award, for the paper entitled Knock Knock, Who's There? Membership Inference on Aggregate Location Data.
JUL 2017	<b>PETS 2017 Stipend Award</b> , for attending the Privacy Enhancing Technologies Symposium (PETS), Minneapolis, Minnesota, USA.
Nov 2016	<b>ACM SIGSPATIAL 2016 Travel Award</b> , for attending the International Conference on Advances in Geographic Information Systems, ACM SIGSPATIAL, Burlingame, California, USA.
MAY 2016	<b>TPMPC Travel Award</b> , for attending the workshop on Theory and Practice of Multi-Party Computation (TPMPC), Aarhus, Denmark.

#### TECHNICAL REPORTS

Luca Melis, Apostolos Pyrgelis and Emiliano De Cristofaro, **Private and Scalable Highly Predictive Blacklisting**, Technical Report, 2016

Souheil Bcheri, Norbert Goetze, Vasiliki Liagkou, Apostolos Pyrgelis, Christoforos Raptopoulos, Yannis Stamatiou, Katalin Storf, Peder Wängmark and Harald Zwingelberg, EU FP7 ABC4TRUST - D5.1: Scenario Definition for both Pilots,

Souheil Bcheri, Kasper L. Damgaard, Daniel Deibler, Norbert Goetze, Hans G. Knudsen, Maksym Moneta, Apostolos Pyrgelis, Eva Schlehahn, Michael B. Stausholm and Harald Zwingelberg, EU FP7 ABC4TRUST - D5.3: Experiences and Feedback of the Pilots | Details

Joerg Abendroth, Vasiliki Liagkou, Apostolos Pyrgelis, Christoforos Raptopoulos, Ahmad Sabouri, Eva Schlehahn, Yannis Stamatiou and Harald Zwingelberg, EU FP7 ABC4TRUST - D7.1: Application Description for Students

Kasper Damgaard, Hamza Ghani, Norbert Goetze, Anja Lehmann, Vasiliki Liagkou, Jesus Luna, Gert Læssøe Mikkelsen, Apostolos Pyrgelis and Yannis Stamatiou, EU FP7 ABC4TRUST - D7.2: Necessary hardware and software package for the student pilot deployment

Detail

Daniel Deibler, Malte Engeler, Ioannis Krontiris, Anja Lehmann, Vasiliki Liagkou, Apostolos Pyrgelis, Eva Schlehahn, Yannis Stamatiou, Welderufael Tesfay and Harald Zwingelberg, EU FP7 ABC4TRUST - D7.3: Evaluation of the Student Pilot | Details

## TALKS & ARTICLES

Knock Knock, Who's There? Membership Inference on Aggregate Location Data - 20 Feb 2018, NDSS, San Diego, California, USA | Details

What Does The Crowd Say About You? Evaluating Aggregation-based Location Privacy - 19 Jul 2017, PETS, Minneapolis, Minnesota, USA Details

**Privacy-Friendly Mobility Analytics using Aggregate Location Data** - 3 Nov 2016, ACM SIGSPATIAL, Burlingame, California, USA

Ioannis Krontiris and Apostolos Pyrgelis, Menschen vergessen – Systeme nicht, Mehr Datenschutz für den Einzelnen mit ABC4Trust - PHP Magazine Vol. 5/12. PHP Magazine, 2012

Cryptography and Security in Wireless Sensor Networks - 14 Oct 2009, FRONTS 2nd Winterschool, Braunschweig, Germany

## **WORK EXPERIENCE**

SEP 2017 - DEC 2017

Intern at Telefonica Research Barcelona (TID)

Analysis of a large-scale mobility dataset derived from mobile network events. In particular, the project investigated the uniqueness of mobility patterns as well as their inherent characteristics.

TECHNOLOGIES USED: Python (numpy, numba)

Jun 2016 - Aug 2016

Summer Intern at the ALAN TURING INSTITUTE (ATI)

Analysis of a broad dataset provided by a youth support charity in terms of topics, languages and peer-support as well as application of machine learning techniques for predictive tasks.

TECHNOLOGIES USED: Python (pandas, scikit-learn, NetworkX), MySQL

MAY 2014 - MAR 2015

Analyst - Software Engineer at the Center of Information Technology Support of the Hellenic Army (KEPYES)

While fulfilling my military service at KEPYES - located at the Ministry of National Defense, i maintained and supported various military administrative applications.

TECHNOLOGIES USED: Java, JSP, Javascript, Hibernate, Oracle

Nov 2010 - May 2014

Researcher at Computer Technology Institute and Press "Diophantus" (CTI), Patras, Greece

EU FP7 Project ABC4TRUST: Attribute Based Credentials for Trust Design of pilot scenarios for privacy protection of end users, implementation of web applications and integration of the ABC4Trust technology, development of cryptographic protocols for smart cards (Zeit Control Basic Card, MultoS), organization and administration of the project pilot at University of Patras, system maintenance and administration (Ubuntu Linux, Windows Server 2008), statistical evaluation of the pilot results using questionnaires, active participation in the writing of project deliverables, research papers.

TECHNOLOGIES USED: Java, REST-WS, Jetty, PHP, MySQL, Apache, Drupal

SEP 2010 - OCT 2010

Researcher at Computer Technology Institute and Press "Diophantus" (CTI), Patras, Greece

EU FP7 Project VITRO: Virtualized Distributed Platforms of Smart Objects

Research on the integration of cryptographic algorithms at the project platform, development of cryptographic algorithms (AES, SHA-1, ECDH, ECIES, ECDSA) on the Wiselib library

TECHNOLOGIES USED: C, C++

DEC 2007 - DEC 2008

Employed at Hellenic Telecommunications Organization (OTE), Patras, Greece.

Worked as an operator of administrative IT applications regarding customer service.

# **COMPUTER SKILLS**

PROGRAMMING: C, C++, C#, Java, Python, PHP, JSP, Hibernate, MySQL, Oracle,

Matlab, HTML, Javascript, Ajax, CSS, Xml

OPERATING SYSTEMS: Microsoft Windows, Linux, Unix

## FOREIGN LANGUAGES

ENGLISH: Michigan Certificate of Proficiency in English, year 2001

IELTS Cambridge English Language Assessment (7,5 / 9), year 2015

FRENCH: Delf A1, A2, A3, A4, year 2000

## INTERESTS AND ACTIVITIES

SPORTS: Basketball, Football, Swimming, Hiking, Mountain Running, Climbing, Ta-

ble Tennis, Cycling

HOBBIES: Music, Cinema, Literature, Technology

Last Update: May 15, 2018