

## Gokhan Sagirlar

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CONTACT INFORMATION	Via Mazzini,5 Varese, IT 21100	+39 342-625-28-44 gsagirlar@uninsubria.it
RESEARCH INTERESTS	Internet of Things, Blockchain Technology, Security, Privacy,	
EDUCATION	<b>University of Insubria</b> , Varese, IT  Ph.D., Computer Science <i>Expected:</i> October 2018 <ul style="list-style-type: none"><li>• Advisors: Prof. Elena Ferrari and Assoc. Prof. Barbara Carminati</li></ul> <b>Ege University</b> , Izmir, TR  B.S., Computer Engineering <ul style="list-style-type: none"><li>• GPA: 92.06/100</li><li>• 2<sup>nd</sup> out of 110 graduates</li></ul>	
RESEARCH EXPERIENCES	<b>Research Assistant</b> Theoretical and Applied Sciences Department, University of Insubria Supervisor: Professor Elena Ferrari	September 2015 to present
INDUSTRIAL EXPERIENCES	<b>Engineering Intern</b> ASELSAN, TR Software Engineering Department, Project: Developing UART simulation software for VxWorks O.S. Related Skills: C, Embedded programming, Real Time Operating Systems, Teamwork	July 2014 to August 2014
	<b>Long Term Intern</b> IBM, TR Information Technologies Department, Project: Windows Server management. Related Skills: Windows Servers (2003, 2008, 2012), Microsoft SQL Servers, Hyper-V, Lync Server, TMG, ISA, Communications	March 2014 to July 2014
PROFESSIONAL SKILLS	<ul style="list-style-type: none"><li>• Languages: Java, Go, Solidity, C, C#, Objective C, SQL, Assembly, C++, JavaScript, XML, HTML</li><li>• Platforms and Systems: Ethereum, Eclipse, XCode, MySQL, Streambase, MS Visual Studio, MS SQL Server, Hyper-V, Lync Server, TMG, ISA, Communications</li><li>• Operating Systems: Linux, Mac OS X, Windows, VxWorks, Windows Server (2003,2008,2012)</li></ul>	

PUBLISHED  
PAPERS

1. Carminati, B., Colombo, P., Ferrari, E., **Sagirlar, G.** “Enhancing User Control on Personal Data Usage in Internet of Things Ecosystems.” *Services Computing (SCC), 2016 IEEE International Conference on*, 291-298

PAPERS UNDER  
SUBMISSION

1. **Sagirlar, G.**, Carminati, B., Ferrari, E., “Decentralized Privacy Enforcement for Internet of Things Smart Objects.” *ACM Asia Conference on Computer and Communications Security (ASIACCS) 2017*

PAPERS IN  
PREPARATION

1. **Sagirlar, G.**, Carminati, B., Ferrari, E., “Blockchain Technology Adaption for Internet of Things Ecosystem”
2. **Sagirlar, G.**, Carminati, B., Ferrari, E., “Blockchain Technology Literature Overview”

SOFTWARE  
DEVELOPMENT  
PROJECTS

1. **Decentralized Privacy Enforcement for Internet Of Things Smart Objects (Java/C++/C/XML)**

I have developed privacy enforcement for Internet of Things smart objects where data are consumed and aggregated according to user privacy preferences. For this project I have developed several enforcement monitors using Java, C and C++ languages, in order to test performance of decentralized privacy enforcement mechanism proposed in *Decentralized Privacy Enforcement for Internet of Things Smart Object* paper. Raspberry Pi and FRDM-K64F platforms have been used as smart objects of IoT and privacy preferences have been encoded as XML files.

2. **Privacy Preference Enforcement over Central Authority for Internet Of Things, (Java/XML)**

I have developed privacy aware IoT solution on central authority where data are consumed and aggregated according to user privacy preferences, in order to test overhead given by privacy preferences enforcement mechanism proposed in *Enhancing User Control on Personal Data Usage in Internet of Things* paper. The framework has been developed over StreamBase CEP Platform using Java language and preferences have been encoded as XML files.

3. **Smart Commercial Applications on iBeacon Devices, (Objective C/Java)**

I have implemented an iOS application, which uses iBeacon devices and applies data mining techniques. Firstly, the program uses all data produced by iBeacon devices stored to a web server, and shows statistical information in real time. Secondly, the program applies data mining techniques to the stored data and derives useful information regarding the potential commercial uses of this data. Based on derived information and preferences of the enterprise owner, the program sends push notifications to the users, whom data are stored in the web server.

#### 4. UART Simulation Software, (C/Assembly)

I have implemented a program, which simulates all characteristics of UART chip. The program works directly with real time systems, in order to make test processes of newly developed hardware systems easier and faster. Normally, for testing responses of the newly developed hardware to different states of UART chip, physical changes need to be done on actual UART chip and this is not convenient both because of the time overhead as well as the expenses produced. The developed program works on real time operating system VxWorks, and achieved full compatibility with simulated UART chip.

#### CERTIFICATES & ACHIEVEMENTS

1. Full scholarship for Ph.D. studies, September 2015  
Dept. of Theoretical and Applied Sciences, University of Insubria
2. 2<sup>nd</sup> rank among Computer Engineering Department, June 2015  
Ege Univeristy
3. TOEFL Test, Score: 93 /120 January 2015
4. GRE Test, Score: Quantitative: 168/170 October 2015
5. Force.com Developer Certification (Salesforce.com) September 2015
6. ACM IC/PC Summer Programming Camp Attendance July 2013
7. Ranked in top 0,75 % out of 1.6 million examinees June 2011  
National Higher Education Entrance Examination, Turkey

#### REFERENCES

Elena Ferrari  
Full Professor  
Theoretical and Applied Sciences Department,  
University of Insubria Email: elena.ferrari@uninsubria.it

Barbara Carminati  
Associate Professor  
Theoretical and Applied Sciences Department,  
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Aybars Ugur  
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Computer Engineering Department,  
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#### ACTIVITIES

Swimming, Boxing, Fitness, Running, Freediving