



# MATTIA CAMPANA





Computer Scientist, Researcher, Developer

## ABOUT ME

I am Mattia Campana, I was born on 7<sup>th</sup> April 1987 in Milano (Italy). I received a M.S. degree in Computer Science from the University of Milan in 2015. Then, I moved in Pisa (Italy) to start the Ph.D. program in Computer Engineering at the University of Pisa in collaboration with the Institute for Informatics and Telematics of the National Research Council of Italy (IIT-CNR).

Currently, I am a Ph.D. Candidate, and my research activity is related to the study and application of Context-aware Recommender Systems to optimize the data dissemination and content discovery in Opportunistic Networks and Mobile Social Networks.

## CONTACTS

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 [mattiacampana](#)  
 [campana.mattia](#)  
 [github.com/matbell](#)

## LANGUAGE SKILLS

**Italian** Native language

**English**




Reading 

Writing 

Listening 

Speaking 

## WORK EXPERIENCE

- 2015**  **Researcher**  
Intitute for Informatics and Telematics of the National Research Council of Italy (IIT-CNR), Pisa (Italy).
- 2013**  **Freelance Mobile Developer**  
Android and iOS Developer.
- 2007**  **Developer**  
Sidoti & Tartaglia S.r.l., Segrate, Milano (Italy)

## EDUCATION

- now**  **Ph.D. in Computer Engineering**  
Ph.D. candidate in Computer Engineering at the University of Pisa (Italy) in collaboration with the Institute of Informatics and Telematics of the National Research Council of Italy (IIT-CNR).
- 2015**  **Master Degree in Computer Science**  
University of Milan (Italy). Thesis: "**Context reasoning algorithms for mobile devices**" (Italian only).
- 2011**  **Bachelor Degree in Computer Science**  
University of Milan (Italy). Thesis: "**Security analysis of the Android operating system**" (Italian only).

## PUBLICATIONS

### International Scientific Journals

M. Campana, F. Delmastro, **Recommender Systems for Online and Mobile Social Networks: A survey**. Online Social Networks and Media, Elsevier, 2017

V. Arnaboldi, M. Campana, F. Delmastro, **A personalized recommender system for pervasive social networks**. Pervasive and Mobile Computing, Elsevier, 2017

# TECHNICAL SKILLS

## Programming Languages / Scripting

Java	<div><div></div></div>
Python	<div><div></div></div>
Objective-C	<div><div></div></div>
C	<div><div></div></div>
PHP	<div><div></div></div>
HTML	<div><div></div></div>
CSS	<div><div></div></div>
XML	<div><div></div></div>
Bash	<div><div></div></div>

## Databases

SQL	<div><div></div></div>
MySQL	<div><div></div></div>
PostgreSQL	<div><div></div></div>
Oracle	<div><div></div></div>
PostGIS	<div><div></div></div>
NoSQL	<div><div></div></div>

## Developing Tools / Frameworks

Jersey	<div><div></div></div>
G. App Engine	<div><div></div></div>
G. Cloud Endpoints	<div><div></div></div>
Apache Maven	<div><div></div></div>
Git	<div><div></div></div>
UML	<div><div></div></div>
Design Patterns	<div><div></div></div>

## Operating Systems

GNU/Linux	<div><div></div></div>
macOS	<div><div></div></div>
Windows	<div><div></div></div>

# RESEARCH INTERESTS



## OPPORTUNISTIC NETWORKS

A special kind of self-forming and delay tolerant networks for mobile devices.



## MACHINE LEARNING AND RECOMMENDER SYSTEMS

Model users' behaviors and preferences to create proactive services.



## MOBILE SOCIAL NETWORKS

Study user social relationships to optimize data dissemination among mobile nodes.

## International Scientific Conferences

M. Campana, D. Chatzopoulos, F. Delmastro, P. Hui, **Lightweight Modeling of User Context Combining Physical and Virtual Sensor Data**. ACM UbiComp/ISWC'18 Adjunct, 2018, Singapore.

V. Arnaboldi, M. Campana, F. Delmastro, **Context-Aware Configuration and Management of WiFi Direct Groups for Real Opportunistic Networks**. IEEE MASS 2017, Orlando, Florida, USA.

M. Campana, F. Delmastro, R. Bruno, **A machine-learned ranking algorithm for dynamic and personalised car pooling services**. IEEE ITSC 2017, Rio de Janeiro, Brazil.

V. Arnaboldi, M. Campana, F. Delmastro, **PLIERS: a popularity-based recommender system for content dissemination in online social networks**. ACM SAC 2016, Pisa, Italy.

# PROJECTS

## 2017 ContextKit (CK)

A development framework written in Java, designed for large-scale sensing experiments with Android devices. It supports multiple sensors such as Location, Motion, and Proximity (using both Bluetooth and Wi-Fi Direct). CK provides also some functionalities that can be used to characterize the users' behavior and interests, such as the apps usage statistics, activity recognition, calls and messaging logs.

[contextkit.github.io](https://contextkit.github.io)

## 2016 GoTogether

A car pooling application in which users can offer their own car to share specific trips or search for rides and become passengers. The app provides recommendations tailored to the user's profile, her preferences, needs and her behavior while using the application. It has been originally designed for users of the research area of CNR in Pisa in the framework of SMART AREA project.

**Developed components:** RESTful webservice, and Android application.

[it.cnr.iit.smartmobility](https://it.cnr.iit.smartmobility)

## 2014 HugMe App

A dating application developed for HugMe LLC company.

**Developed components:** RESTful webservice, iOS and Android applications.

[hugmeapplication.com](https://hugmeapplication.com)

## 2013 Woof

A social network dedicated to dog owners.

**Developed components:** RESTful webservice, iOS and Android applications.

[everywarelab.di.unimi.it/mobidev/129](https://everywarelab.di.unimi.it/mobidev/129)

## ACADEMIC SERVICES

### Reviewer for:

- **IFIP Networking 2018** (Conference)
- **Elsevier Online Social Network and Media** (Journal)

(see **Attached 4**)

### Publicity Chair for:

- **IFIP IoP-W 2016: First IFIP Internet of People Workshop** co-located with **IFIP Networking 2016** (Conference)
- (see <http://cnd.iit.cnr.it/iopw2016>)

## RESEARCH PROJECTS

Since 2015 I am involved in the following research projects (see **Attached 1**):

- **Intesa** (Regione Toscana) [www.progetto-intesa.it](http://www.progetto-intesa.it)
- **GAMEBUS** (EU Project) [www.gamebus.eu](http://www.gamebus.eu)
- **CAPP** (Registro.it) [www.nic.it/en/registrys-projects/capp](http://www.nic.it/en/registrys-projects/capp)

## INTERNSHIPS & SUMMER SCHOOLS

### Jun-Aug 2018 ○ Student Visitor at HKUST

During the summer period of 2018 I was visiting the **System and Media Laboratory (SyMLab)** at the **Hong Kong University of Science and Technology (HKUST)** to work with **Dr. Dimitris Chatzopoulos** and **Prof. Pan Hui**.

(see **Attached 2**)

### Aug 2018 ○ Summer School

I attended the **ACM SIGCHI Summer School on Recommender Systems** organized and hosted by the **Faculty of Computer Science of the Free University of Bozen-Bolzano** (Italy), in August 2018.

(see **Attached 3**)



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Pisa, 4 Settembre 2018

CNR - IIT

U 0009004

05/09/2018



In qualità di

- Responsabile delle attività scientifiche di IIT-CNR all'interno dei progetti:
  - o "CAPP: Collective Awareness Participatory Platform", progetto finanziato da Registro.it all'interno dell'iniziativa "Progetti speciali del registro",
  - o progetto Europeo EIT Digital "GameBus: Social health games" 2015-2016 (Action Line "Health and well-being"),
  - o progetto "SocializeME, un progetto di cooperazione tra enti di ricerca e scuole superiori", finanziato dalla Fondazione cassa di Risparmio di Lucca nell'ambito del Bando Ricerca 2016-2017,
  - o progetto regionale FAR-FAS 2014 "INTESA: Servizi Ict iNTEGRati per il bEnessere di Soggetti frAgili",

#### **dichiaro che**

il Dott. Mattia G. Campana è stato membro della Unità Operativa IIT-CNR dei progetti sopra elencati ed in particolare:

- ha partecipato attivamente alle attività della Unità Operativa CNR del progetto CAPP nell'ambito del Work Package 3 "Design and Development of Collective Awareness Middleware Platform",
- ha partecipato attivamente alle attività della Unità Operativa CNR del progetto EIT Digital GameBus nell'ambito dei task A1504 "Maturation of GameBus Component for Social Wellbeing" (2015) e task A1603 "Transfer of Social Sensing Technologies" (2016),
- ha partecipato attivamente alle attività della Unità Operativa IIT-CNR del progetto SocializeME nell'ambito del Work Package 4 "Sperimentazioni e raccolta dati" e Work Package 5 "Analisi dei risultati e loro presentazione",
- ha partecipato attivamente alle attività della Unità Operativa IIT-CNR del progetto INTESA per l'obiettivo operativo 5, attività 5.1 "Servizio di monitoraggio delle interazioni sociali" e 5.4 "Servizi di stimolo all'inclusione sociale".

Franca Delmastro  
Ricercatore  
Istituto di Informatica e Telematica del CNR  
Via G. Moruzzi, 1  
56124 Pisa



計算機科學及工程學系  
DEPARTMENT OF COMPUTER  
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Prof. Pan Hui  
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Clear Water Bay  
Hong Kong  
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September 4, 2018

TO: **Institute of Informatics and Telematics (IIT)**  
**National Research Council of Italy (CNR)**  
Via G. Moruzzi, 1  
56124 Pisa, Italy

FROM: Prof. Pan Hui

**SUBJECT: Visiting Scholarship of Mattia G. Campana, June – August 2018**

The Ph.D. candidate Mattia G. Campana has been visiting the SyMLab at Hong Kong University of Science and Technology in Hong Kong, in the period from June 1<sup>st</sup> to August 28<sup>th</sup>, 2018. I have been his advisor during his visit.

The Ph.D. candidate Mattia G. Campana has been mainly involved in project “**Context-Aware Semantic Annotation of Mobility Records**”.

Mattia showed good abilities in research collaboration, rapidly integrating himself in the research group by exchanging ideas with other students and researchers, and proposing interesting joint activities, in particular with Dimitris Chatzopoulos, one of my PhD students. In only three months of his stay here, his work has contributed to a joint paper accepted at CPD UBICOMP workshop in October 2018, and to further extensions of the research activity.

Sincerely,

A handwritten signature in black ink, appearing to be 'Pan Hui', is written over a horizontal line.

Pan Hui, Ph.D.

IEEE Fellow, ACM Distinguished Scientist  
Director, HKUST-DT Systems and Media Laboratory (SyMLab), HKUST, Hong Kong  
Nokia Chair Professor in Data Science, University of Helsinki, Finland







## CERTIFICATE OF ATTENDANCE

This document certifies that

**MATTIA GIOVANNI CAMPANA**

has attended the

**ACM SIGCHI Summer School on Recommender Systems**

Deep Learning for RS (B. Hidasi)  
Matrix and Tensor Factorization (P. Symeonidis)  
Affect and Personality-Based RS (M. Tkalcić)  
Evaluation of RS research (G. Shani)  
UX and Recommender Systems (S. Berkovsky & B. Knijnenburg)  
Group RS (J. Masthoff)  
Scalable RS in Industry (X. Amatriain)  
Recent Developments of Content-Based RS (G. Semeraro, M. de Gemmis, P. Lops, C. Musto & F. Narducci)  
Tools and Replication of RS Research (A. Said & A. Bellogín)

organised and hosted by the  
Faculty of Computer Science  
Free University of Bozen-Bolzano, Italy  
21<sup>st</sup> — 25<sup>th</sup> August, 2017 (38 hours)

25<sup>th</sup> August, 2017  
Bozen-Bolzano

Markus Zanker



Consiglio Nazionale delle Ricerche  
Istituto di Informatica e Telematica



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Pisa, 4 Settembre 2018

In qualità di

- Program Committee Member per la conferenza IFIP Networking 2018
- Associate Editor-in-Chief per il journal *Elsevier Online Social Networks and Media (OSNEM)*

**dichiaro**

di aver assegnato al Dr. Mattia Campana il compito di revisionare i seguenti articoli scientifici:

- "A Novel Similarity Strategy Based on Latent Factor for Collaborative Recommendation" per la conferenza IFIP Networking 2018
- "Decision making strategy for detecting authenticated recommendations and reducing volumes of data in online shopping sites" per il journal *Elsevier Online Social Networks and Media (OSNEM)*.

Il Dr. Mattia Campana ha effettuato revisioni dettagliate e di qualità, svolgendo i compiti di revisore che gli ho assegnato con puntualità, precisione e professionalità.

Andrea Passarella  
Ricercatore  
Istituto di Informatica e Telematica del CNR  
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