Elena Lucherini

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EDUCATION Scuola Superiore Sant'Anna, University of Pisa

2014 - present

M.Sc. in Embedded Computing Systems

University of Pisa

2011 - 2014

B.Sc. in Computer Engineering

EXPERIENCE Master's Thesis

Dec. 2016 - present

Max Planck Institute for Software Systems

Kaiserslautern, Germany

- Advisors: Giorgio Buttazzo (SSSUP) and Björn Brandenburg (MPI-SWS).
- Implementation and evaluation of a software-based cache partitioning mechanism, called *page coloring*, on Linux PREEMPT-RT. In order to reduce interference caused by shared caches on multicore platforms, a portion of the last-level cache is exclusively dedicated to real-time applications, effectively improving their predictability. To achieve a higher degree of isolation compared to previous implementation efforts, kernel processes use an exclusive LLC partition, as well.

SELECTED PROJECTS

BeaCube: An Event-Triggering System with iBeacon

• Noise filtering, event logging, and possibility of seamlessly adding custom third-party events. Developed in Node.js.

Classifiers of workers' risk perception

• Set of classifiers trained and tested on a given set of data. Comparison of the classifiers with a genetic algorithm.

MonIQA: Air Quality Index MONitoring

• Web interface for the visualization of official data about the quality of the air in Italy (*Bachelor's thesis*).

ACHIEVEMENTS

- Press coverage on Bachelor's thesis at national level, on online and printed newspapers such as La Nazione, Repubblica.it, and Yahoo! Sport (all links are in Italian). Coverage on UniPi's official news page.
- Recipient of a merit-based part-time collaboration opportunity with UniPi in 2015, chosen among the students of the university.
- BeaCube chosen as best project for the Spring 2016 Industrial Applications class at UniPi.