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Saint Petersburg  
Russia

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# Alberto Mardegan

## Work profile

- **Canonical Ltd.**, remote working (Saint Petersburg, Russia), 2011-2017

Lead developer of the Online Accounts project<sup>1</sup>, used in Ubuntu Unity (all form factors) and also adopted by other platforms, such as KDE and Sailfish OS. Evolved the Online Accounts system initially developed for Nokia into a portable, UI agnostic framework. Implemented several UI components in Qt/QML for Ubuntu phones and tablets. Optimized the architecture for embedded systems, with on-demand loading of components and resource savings on inactivity. Implemented a security module for checking client's credentials against an ACL. Designed and implemented APIs for C, C++ and Python clients, along with documentation and example code.

Designed a plugin-based architecture for the new Ubuntu System Settings application, and delivered its implementation in C++ with a QML-based UI. The design has proved itself working across different architectures and device form-factors, with most plugins being contributed by other people.

Transformed a monolithic event polling service into a lightweight, modularized service which loads and starts subprocesses on-demand, where each subprocess communicates with the parent service through JSON messages transmitted via stdin/stdout, allowing them to be written in any programming language and making the service easily extendable by third parties.

Contributed to a wide range of software projects, ranging from geolocation to PIM, from webapps to company-sponsored projects and upstream ones, using the most diverse programming languages and technologies<sup>2</sup>.

Languages and technologies used: C, C++/Qt, Go, Javascript, Python, glib, D-Bus, sqlite.

- **NOKIA Oy**, Helsinki, 2009-2011

Lead developer in the MeeGo Accounts & SingleSignOn project<sup>3</sup>. The project consisted of developing from scratch a new framework providing a unified storage for account settings, supporting different services under the same account, and Single Sign On functionality with a major stress on security, extensibility and usability. This was an acclaimed feature of the Nokia N9 phone.

Languages and technologies used: C, C++/Qt, glib, D-Bus, sqlite, XML, LUKS.

- **NOKIA Oy**, Helsinki, 2008-2009

Main developer of several UI/middleware components for the Maemo platform: from Hildon/Gtk+ UI components (instant messaging presence, accounts), to the design of the IM/VoIP

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1 <https://launchpad.net/online-accounts>

2 Look for contributions by user mardy on launchpad.net, github.com and gitlab.com

3 <https://gitlab.com/accounts-ss0/>

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account framework, while still actively developing the middleware of the Telepathy IM/VoIP framework<sup>4</sup>. All these components were successfully deployed in the Nokia N900 phone.

Languages and technologies used: C, glib, Telepathy, Hildon, Gtk+, D-Bus, XML.

● **NOKIA Oy**, Helsinki, 2006-2008

Main developer and designer of the middleware in the Telepathy IM/VoIP framework for the OSSO/Maemo platform. The outcome of this work, besides being available in the Gnome desktop, was also a key feature for the Nokia N800 and N810 internet tablets.

Languages and technologies used: C, glib, Telepathy, D-Bus.

● **SOGEA Srl.**, Treviso (Italy), 2002-2006

Analyst and developer of a wide range of enterprise applications, from accounting software to reporting tools, software for embedded terminals and interfacing with logistics and production chain actors; on Unix (SCO) and Linux (SUSE) OS.

Languages and technologies used: C, C++/Qt, glib, PostgreSQL, C-isam.

● **University of Padua**, faculty of Pure and Applied Mathematics, Padova, 2002

Collaboration for publishing a paper on Computational Mathematics

● **Own projects / Open source collaborations**, 1997-present

- WIP: cross-platform photo manager application, Imaginario<sup>5</sup>
- Cross-platform (Windows, OS X, Linux) graphical geotagging application<sup>6</sup>
- Linux kernel driver for the Terratec Cinergy T XS DVB-T receiver.
- Mappero map/navigation application for the Maemo N900/Nokia N9<sup>7</sup>
- Linux kernel framebuffer hardware-accelerated operations for the ATI w100 graphics chipset, obtained by reverse-engineering of a closed-source driver.
- Minor contributions to many open source projects.
- Music player/editor for MOD files written for Windows 95.

## Education

● University of Padua, faculty of Pure and Applied Mathematics, Padova, 1997-2002

● Concentration on Computational Mathematics.

● Thesis on a new algorithm for approximation of bivariate functions.

● Scientific high-school “Leonardo da Vinci”, Treviso, 1992-1997

● Mathematics Olympiads, 1995: awarded sixth place among all Treviso high-school students.

● Mathematics Olympiads, 1997: awarded first place for Veneto region; among the best 30 students in the national classification.

● Various awards in the “Giochi matematici” competitions held at Bocconi University, Milano.

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4 <https://telepathy.freedesktop.org/components/telepathy-mission-control/>

5 <http://blog.mardy.it/2016/05/imaginario-for-your-desktop.html>

6 <https://www.mardy.it/mappero-geotagger/>

7 <https://www.mardy.it/mappero/>

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## Computer skills

- Operating systems: Linux (Debian, Ubuntu, embedded), Windows, OS X
- Programming languages: C, C++, QML, Go, C#, Python, Vala, Java, PHP, Bash scripting
- Other computer languages: SQL, XML, LaTeX, HTML
- Libraries, toolkits and APIs: Qt, GTK+, MeeGoTouch, Clutter, Telepathy, D-Bus, OpenGL, DirectX, Microsoft Windows API
- Embedded development: Sharp Zaurus using the OpenEmbedded platform (2005-2006), Maemo, MeeGo, Ubuntu phones
- Package building and maintenance: working with upstream, creating .snap, .deb, .rpm, manually or working with CI systems.
- Data processing and analysis
- API design and software architecture

## Languages

- Italian (native)
- English (fluent)
- Russian (intermediate, improving)
- French (reading: good; listening: fair)
- Spanish (reading: good; listening: fair)
- Latin (reading: intermediate; writing: poor)
- Interlingua (fluent)
- Bulgarian (fair)

## Selected activities

- Administrator of the “Union Mundial pro Interlingua”
- Active participation in international conferences about Interlingua

## Interests

- Photography
- Blogging
- Practising sports: gym, kung-fu, tai-chi, biking, jogging.
- Reading: scientific articles, news about technology, international news.
- Exploring different cultures (Slavic, Japanese, Chinese, Korean)