



Toni Magni

Date of birth: 27/05/1976 | **Nationality:** Italian, American | **Gender:** Male |

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About me: Medical software interoperability with a focus on orthodontic practices. My goal is to help bring current state of the art software to the medical domain, by laying down the fundamental infrastructure for progress: making the implementation of medical software standards simple and easy.

WORK EXPERIENCE

03/2022 – CURRENT – St. Louis, MO, United States

AAO INTEROPERABILITY TASK FORCE – AMERICAN ASSOCIATION OF ORTHODONTICS

Providing expertise advice for the association's effort to bring non-proprietary interoperability to the orthodontic domain.

<https://www.aaoinfo.org> | 401 North Lindbergh Boulevard, 63141-7816, St. Louis, MO , United States

12/2021 – CURRENT – Cleveland, OH, United States

DEPARTMENT OF ORTHODONTICS, CLINICAL PROFESSOR – CASE WESTERN RESERVE UNIVERSITY

Teaching prospective orthodontists how to gain control over their patient's data.

10900 Euclid Ave., 44106, Cleveland, Ohio 44106, United States

2020 – CURRENT

FOUNDER – OPEN-ORTHO

Implementation of orthodontic software standards (based on ANSI, DICOM and HL7) as open-source tools on Github, with the goal to promote interoperability adoption by the medical software vendors.

Rossiglione, GE, Italy

2013 – CURRENT – Rossiglione, GE, Italy

ORTHODONTIC PRACTICE INFORMATICS CONSULTANT – ORTOCOMPUTER

Maintenance of servers and workstations; provide and quote telecommunication solutions for orthodontic practices; network technician.

Rossiglione, GE, Italy

03/2007 – CURRENT – Atlanta, GA, United States

EUROPEAN PROCESS ENGINEER – TOPS SOFTWARE

Technical support, training and sales in Europe; Installation and implementation tasks; Research and development of software and procedures to improve efficiency of internal implementation and support processes; Sales

Information and communication | www.topsOrtho.com | Atlanta, GA, United States

02/2005 – CURRENT – Chicago, IL, United States

WORKING GROUP 11.6 CO-CHAIR – AMERICAN DENTAL ASSOCIATION

At Working Group 11.6, Integration of Orthodontic Standards I coordinate the development and publication of orthodontic informatics standard, based on ANSI, DICOM and HL7.

www.ada.org/en/science-research/dental-standards/standards-committee-on-dental-informatics |

211 East Chicago Ave., 60611-2678, Chicago, IL, United States

10/2014 – 03/2015 – Genova, GE, Italy

ACTOR – SCREENFABULA

Actor for web-series published on social media like YouTube and Facebook.

Genova, GE, Italy

08/2006 – 08/2010

RESEARCH ASSOCIATE – BOLTON BRUSH GROWTH STUDY CENTER, CASE WESTERN RESERVE UNIVERSITY

Development of orthodontic and cephalometric informatics standard, software consulting.

10900 Euclid Ave., 44106, Cleveland, Ohio 44106, United States

02/04/2002 – 02/04/2003 – Brasília, DF, Brazil

SOFTWARE DESIGNER – THE NATIONAL COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT (CNPQ), UNIVERSITY OF BRASÍLIA

UML modelling and JAVA development of an SQL database structured system to control, archive and monitor network based security cameras.

www.cnpq.br | Brasília, DF, Brazil

06/2002 – 12/2002

SOFTWARE DESIGNER – REDEFINING PROGRESS

Implementation of an MS-Excel population growth model into JSP based web application.

www.rprogress.org | 1904 Franklin Street, 94612, Oakland, CA, United States

1999 – 2001 – Cleveland, OH, United States

OPERATING ROOM TECHNICIAN – UNIVERSITY HOSPITALS HEALTH SYSTEMS, NEUROLOGICAL SURGERY DEPARTMENT

Responsible for the operation and maintenance of stereotactic surgical navigation system (UNIX based) in neurosurgery operating rooms.

www.uhhospitals.org/services/neurology-and-neurosurgery/institute |

11100 Euclid Avenue, 44106, Cleveland, OH, United States

09/2000 – 05/2001

BIOMEDICAL ENGINEER (SOFTWARE) – HEART & VASCULAR RESEARCH CENTER METROHEALTH CAMPUS, CASE WESTERN RESERVE UNIVERSITY

Implementation in MATLAB of algorithm to measure T-wave alternans from intracardiac potentials.

www.metrohealth.org/heart |

2500 MetroHealth Drive, Hamman 322, 44109, Cleveland, OH, United States

10/1996 – 09/1998

SYSTEM ADMINISTRATOR – DEPARTMENT OF ORTHODONTICS, CASE WESTERN RESERVE UNIVERSITY

General system administration of UNIX network.

dental.case.edu/orthodontics | 10900 Euclid Ave, Cleveland, OH, United States

08/1997 – 01/1998

TEACHING ASSISTANT – DEPARTMENT OF PHYSICS, CASE WESTERN RESERVE UNIVERSITY

Grading of Physics I course work.

www.phys.cwru.edu | Cleveland, OH, United States

09/1996 – 03/1997

BIOMEDICAL ENGINEERING (IMAGING) – CASE WESTERN RESERVE UNIVERSITY

Participation in the design, development and testing of a high resolution low cost 3Dimensional surface imaging equipment.

www.case.edu | Cleveland, OH, United States

● EDUCATION AND TRAINING

01/2003 – 08/2006 – Brasília, DF, Brazil

MASTERS IN ELECTRICAL ENGINEERING (TELECOMMUNICATIONS) – Universidade de Brasília

Medical software standards development and implementation, JAVA programming, UML modelling. Networking and networking security, artificial intelligence and imaging manipulation.

Field(s) of study

- Universidade de Brasília, DF, Brasil

www.unb.br

08/1996 – 06/2001 – Cleveland, OH, United States

BS IN BIOMEDICAL ENGINEERING – Case Western Reserve University

Practical and theoretical training of biomedical devices and production of technical reports and articles. General chemistry, physics, statistics, mathematics, electronics and physiology.

Field(s) of study

- Case Western Reserve University

www.case.edu

09/1982 – 06/1996 – Genova, GE, Italy

GERMAN ABITUR, MATURITÀ ITALIANA – Deutsche Schule Genua

High School education

Field(s) of study

- Deutsche Schule Genua

www.scuolagermanica.it

● PUBLICATIONS

ADA Technical Report No. 1048 for Attachment of DICOM Dataset Using E-Mail

<https://catalog.ada.org/catalog/ada-technical-report-no-1048-for-attachment-of-dicom-dataset-using-e-mail-e-book-554> – 2011

This report promotes patient care and oral health through the application of information technology to dentistry's clinical and administrative operations; to develop standards, Standards and technical reports. (2011, R2015)

ADA Technical Report No. 1060 The Secure Exchange and Utilization of Digital Images

<https://catalog.ada.org/catalog/ada-technical-report-no-1060-the-secure-exchange-and-utilization-of-digital-images-e-book-552> – 2011

This report promotes patient care and oral health through the application of information technology to dentistry's clinical and administrative operations; to develop standards, Standards and technical reports. (2011, R2015)

ADA Technical Report No. 1065 for Use Cases of the Orthodontic Electronic Health Record - E-BOOK - ADA1065-2019D

<https://ebusiness.ada.org/productcatalog/2194/Informatics/ADA-Technical-Report-No-1065-for-Use-Cases-of-the-Orthodonti/ADA1065-2019D> – 2019

The purpose of this technical report is to create an approved list of common use-cases that define the utilization of the electronic health record within the scope of orthodontics.

Solving incompatibilities between electronic records for orthodontic patients

<https://pubmed.ncbi.nlm.nih.gov/17628259/> – 2006

Today, orthodontists should not need to burden their work load with tasks such as figuring out how to send patient information to colleagues or how to share the same patient record across different software programs. In a long-term attempt to lighten these tasks, we are developing a standard for electronic orthodontic patient records to enable a seamless interchange of data between software programs. This article describes a practical proposal that integrates 2 existing standards, HL7 and DICOM, to create a standard for electronic orthodontic patient records.

Cone Beam Computed Tomography and the Orthodontic Office of the Future

<https://www.sciencedirect.com/science/article/abs/pii/S1073874608000674> – 2009

The use of technological devices has not always successfully increased the efficiency of orthodontic practices. Often, new technology is introduced into the practice too soon, effectively interrupting the learning process of their older counterparts and hindering optimization. Consequently, the ultimate goal of efficiency can easily become eclipsed by indulging into new orthodontic gadgets. Cone beam computed tomography can similarly get in the way, if the users are not aware of such phenomena. In this article the author relates how these can negatively affect efficiency, while explaining the role of software interoperability for the ergonomics of the orthodontic practice. Some suggestions on how to prepare for the future are provided.

ADA WP-1100 Codes for Orthodontic/Craniofacial/Forensic Photographic Views and View Sets

<https://ebusiness.ada.org/productcatalog/101024/Informatics/ADA11002021-ADA-SCDI-White-Paper-EBOOK/ADA1100-2021D> – 2021

High quality photographic documentation is central to optimizing orthodontic, craniofacial, and forensic clinical records. This white paper shows how codes, enumerated terms, systematized nomenclature, templates and informatics standards can be used to improve the interoperability and transmissibility of visible light intraoral and extraoral clinical photographs.

<https://ebusiness.ada.org/productcatalog/101024/Informatics/ADA11002021-ADA-SCDI-White-Paper-EBOOK/ADA1100-2021D>

ADA Technical Report No.1059 Guidelines for the Application of the DICOM Standard to Radiographic - ADA1059-2020

<https://catalog.ada.org/catalog/ada-technical-report-no1059-guidelines-for-the-application-of-the-dicom-standard-to-radiographic-89449> – 2020

In the current DICOM documentation, cephalograms are not addressed directly. This technical report (TR) was developed to fill the gap in such a way as to provide imaging equipment vendors an approved way of storing cephalograms along with their clinically relevant data, in an interoperable way.

Proposta e implementação de um padrão para softwares ortodônticos

Magni, Antonio Ferdinando. Proposta e implementação de um padrão para softwares ortodônticos. 2006. 2006

146 f., il. Dissertação (Mestrado em Engenharia Elétrica)-Universidade de Brasília, Brasília, 2006. (Masters Thesis)

ADA Technical Report No. 1085 Guidelines for the Secure Transmission of Protected Health

<https://catalog.ada.org/catalog/ada-technical-report-no-1085-guidelines-for-the-secure-tranmission-of-protected-health-e-book-18965> – 2015

This report is a collaborative effort between SCDI Working Group 12. 1 Digital Imaging and DICOM WG 22 Dentistry.

ADA Technical Report No. 1051 DICOM Requirements for Digital Imaging in Institutional

<https://catalog.ada.org/catalog/ada-technical-report-no-1051-dicom-requirements-for-digital-imaging-in-institutional-e-book-10584> – 2019

This report is based on the DICOM Standard as it applies to dentistry with the goal of increasing interoperability within and between institutional digital radiographic systems.

ANSI/ADA Standard No. 1058 for Forensic Dental Data Set

<https://catalog.ada.org/catalog/ansiada-standard-no-1058-for-forensic-dental-data-set-89182> – 2010

This report promotes patient care and oral health through the application of information technology to dentistry's clinical and administrative operations; to develop standards, Standards and technical reports.

PANIO: The first orthodontic standard

2005

Antonio F. Magni, Franco G. Magni, Mark G. Hans, and Rafael DeSousa Jr. PANIO: The first orthodontic standard. In *American Association of Orthodontics Annual Session*, 2005. (Scientific Posterboard)

● HONOURS AND AWARDS

03/2021

Introduction to Marketing – Coursera

An online non-credit course authorized by University of Pennsylvania and offered through Coursera.

<https://www.coursera.org/account/accomplishments/certificate/2EA8G77N6PWK>

09/2016

Cryptography – Coursera

an online non-credit course authorized by University of Maryland, College Park and offered through Coursera

<https://www.coursera.org/account/accomplishments/certificate/3CDXHRNKW8MG>

09/2015

Software Security – Coursera

a 6 week online non-credit course authorized by University of Maryland, College Park and offered through Coursera

<https://www.coursera.org/account/accomplishments/certificate/A62QXP2H7K>

09/2015

Usable Security – Coursera

A 6 week online non-credit course authorized by University of Maryland, College Park and offered through Coursera.

<https://www.coursera.org/account/accomplishments/certificate/FJLPBGNEKK>

● LANGUAGE SKILLS

Mother tongue(s): **ENGLISH, ITALIANO**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
DEUTSCH	C2	C2	C1	C2	B2
PORTUGUÊS	C2	C1	B2	C1	B2
FRANÇAIS	A2	B1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● JOB-RELATED SKILLS

Job-related skills

Repair and maintenance of mechanical, electrical and electronic equipment (I have always enjoyed repairing professional equipment).

● OTHER SKILLS

Other skills

- Theatrical acting. Involvement in web-series production as actor.
- Music theory (harmony, arrangements) trombone and percussions acquired through seminars (Umbria Jazz 2003, Curso Internacional de Verão de Brasília 2004 and 2005) and participation in bands.

● SEMINARS & MEETINGS

Seminars & Meetings

All ADA SCDI meetings from March 2005 until today.

JCEG Joint Cephalometric Experts Groups:

- November 2009, Cleveland, OH
- November 2014, Cleveland, OH
- February 2017, Cleveland, OH
- March 2019, Cleveland, OH

Other

- HL7 January Working Group Meeting (2006), Pheonix, AZ.
- February 2016, MDM West, Anaheim, CA
- HIMSS Health IT Conference for 2019 Orlando, FL
- RSNA Radiological Society of North America 2019

● THEATRE PARTICIPATIONS

Theatre Participations

- **2018-06-15 Sulla Strada Maestra – Teatro Gregorianum, Milano** di *Anton Cechov* Regia di Lara Franceschetti (*Protagonista*)