



# Toni Magni

**Address:** Valle Berlino, 151, 16010, Rossiglione, Italy

**Email address:** [email@antoniomagni.com](mailto:email@antoniomagni.com) **Phone number:** (+39) 3319248580

**Phone number:** (+1) 6784658120 **Website:** [www.antoniomagni.com](http://www.antoniomagni.com) **Skype:** antoniomagni

**LinkedIn:** <https://www.linkedin.com/in/toni-magni-84437042/>

**Gender:** Male **Date of birth:** 27 May 1976 **Nationality:** Italian, American

## 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 making the implementation of medical software standards simple and easy.

## WORK EXPERIENCE

[ 20 Dec 2021 – Current ] **Clinical Instructor, Department of Orthodontics**

**Case Western Reserve University** <https://case.edu/dental/departments-programs/orthodontics>

**Address:** Cleveland, OH, United States

**City:** Cleveland, OH

**Country:** United States

**Name of unit or department:** Orthodontics

**Business or sector:** Human health and social work activities

[ 2013 – Current ] **Orthodontic Practice Informatics Consultant**

**Ortocomputer**

**Address:** Rossiglione, GE, Italy

**City:** Rossiglione, GE

**Country:** Italy

**Main activities and responsibilities:**

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

[ Mar 2007 – Current ] **Devops Engineer**

**tops Software** [www.topsOrtho.com](http://www.topsOrtho.com)

**Address:** Atlanta, GA, United States

**City:** Atlanta, GA

**Country:** United States

**Business or sector:** Information and communication

**Main activities and responsibilities:**

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

[ Feb 2005 – Current ] **Working Group 11.6 Co-Chair**

**American Dental Association** [www.ada.org/en/science-research/dental-standards/standards-committee-on-dental-informatics](http://www.ada.org/en/science-research/dental-standards/standards-committee-on-dental-informatics)

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

**City:** Chicago, IL

**Country:** United States

**Main activities and responsibilities:**

Coordination and development of orthodontic informatics standards.

[ Aug 2006 – Aug 2010 ] **Research Associate**

**Bolton Brush Growth Study Center, Case Western Reserve University** <https://case.edu/dental/departments-programs/bolton-brush-growth-study-center>

**Address:** 10900 Euclid Ave., 44106, Cleveland, Ohio 44106, United States

**Main activities and responsibilities:**

Development of orthodontic and cephalometric informatics standard, software consulting.

[ 2 Apr 2002 – 2 Apr 2003 ] **Software designer**

**The National Council for Scientific and Technological Development (CNPq), University of Brasília** [www.cnpq.br](http://www.cnpq.br)

**Address:** Brasília, DF, Brazil

**City:** Brasilia, DF

**Country:** Brazil

**Main activities and responsibilities:**

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

[ Jun 2002 – Dec 2002 ] **Software designer**

**Redefining Progress** [www.rprogress.org](http://www.rprogress.org)

**Address:** 1904 Franklin Street, 94612, Oakland, CA, United States

**City:** Seattle, WA

**Country:** United States

**Main activities and responsibilities:**

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

[ Sep 2000 – May 2001 ] **Biomedical Engineer (Software)**

**Heart & Vascular Research Center MetroHealth Campus, Case Western Reserve University** [www.metrohealth.org/heart](http://www.metrohealth.org/heart)

**Address:** 2500 MetroHealth Drive, Hamman 322, 44109, Cleveland, OH, United States

**Main activities and responsibilities:**

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

[ 1999 – 2001 ] **Operating Room Technician**

**University Hospitals Health Systems, Neurological Surgery Department** [www.uhhospitals.org/services/neurology-and-neurosurgery/institute](http://www.uhhospitals.org/services/neurology-and-neurosurgery/institute)

**Address:** 11100 Euclid Avenue, 44106, Cleveland, OH, United States

**Main activities and responsibilities:**

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

[ Oct 1996 – Sep 1998 ] **System administrator**

**Department of Orthodontics, Case Western Reserve University** [dental.case.edu/orthodontics](http://dental.case.edu/orthodontics)

**Address:** 10900 Euclid Ave, Cleveland, OH, United States

**City:** Cleveland, OH

**Country:** United States

**Main activities and responsibilities:**

General system administration of UNIX network.

## EDUCATION AND TRAINING

---

[ Jan 2003 – Aug 2006 ] **Masters in Electrical Engineering (Telecommunications)**

**Universidade de Brasília** [www.unb.br](http://www.unb.br)

**Address:** Brasília, DF, Brazil

**Field(s) of study:** Universidade de Brasília, DF, Brasil

**Main subject / occupational skills covered:**

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

[ Aug 1996 – Jun 2001 ] **BS in Biomedical Engineering**

**Case Western Reserve University** [www.case.edu](http://www.case.edu)

**Address:** Cleveland, OH, United States

**Field(s) of study:** Case Western Reserve University

**Main subject / occupational skills covered:**

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

[ Sep 1982 – Jun 1996 ] **German Abitur, Maturità Italiana**

**Deutsche Schule Genua** [www.scuolagermanica.it](http://www.scuolagermanica.it)

**Address:** Genova, GE, Italy

**Field(s) of study:** Deutsche Schule Genua

**Main subject / occupational skills covered:**

High School education

## PUBLICATIONS

---

[ 2021 ]

### **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>

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>

[ 2009 ]

### **Cone Beam Computed Tomography and the Orthodontic Office of the Future**

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

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.

[ 2006 ]

### **Solving incompatibilities between electronic records for orthodontic patients**

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

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.

[ 2019 ]

### **ADA Technical Report No. 1065 for Use Cases of the Orthodontic Electronic Health Record**

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

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.

[ 2020 ]

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

<https://ebusiness.ada.org/productcatalog/product.aspx?ID=89450>

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.

[ 2005 ] **PANIO: The first orthodontic standard.**

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

[ 2006 ] **Proposta e implementação de um padrão para softwares ortodônticos.**

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

## DIGITAL SKILLS

---

### Programming

Java | Unit Testing | Github | SQL | XML | GitLab | HTML | JSON | Python | Git | POSIX sh | PostgreSQL

### System Administration

Linux | ProxMox | Atlassian Jira | Apache | Atlassian Confluence | macOS | SMTP /IMAP/POP3 | TrueNAS | FreeBSD | Plex Media Server | VMWare | Docker | Tomcat

### Web Development

Jekyll | GitHub Pages

### Documentation

Markdown | Restructured Text | DocBook

### IT Networks & Security

TCP/IPv6 | TCP/IPv4 | CAT6 Wiring | ssh | Yubico YubiKey

### Interoperability

Orthanc - DICOM Server | OsiriX DICOM | DICOM | HL7 | IHE profiles

## HONOURS AND AWARDS

---

[ Mar 2021 ] **Introduction to Marketing Awarding institution:** Coursera

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

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

[ Sep 2016 ] **Cryptography Awarding institution:** 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>

[ Sep 2015 ] **Software Security Awarding institution:** 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>

[ Sep 2015 ] **Usable Security Awarding institution:** 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>

## SEMINARS & MEETINGS

---

[ Dec 2019 ] **Radiological Society of North America, Chicago**

Annual Meeting, Chicago IL.

[ Mar 2019 ] **Joint Cephalometrics Experts Group**

Annual meeting, Cleveland, OH.

[ Feb 2019 ] **HIMSS Global Conference & Exhibition**

Annual Meeting, Orlando, FL.

[ Feb 2017 ] **Joint Cephalometrics Experts Group**

Annual meeting, Cleveland, OH.

[ Feb 2016 ] **Medical Design & Manufacturing (MD&M) West**

Annual Meeting, Anaheim, CA.

[ Nov 2014 ] **Joint Cephalometrics Experts Group**

Annual meeting, Cleveland, OH.

[ Nov 2009 ] **Joint Cephalometrics Experts Group**

Annual meeting, Cleveland, OH.

[ Jan 2006 ] **HL7 Health Level Seven**

Working Group Meeting, Pheonix, AZ.