

# Jerônimo Gustavo Grandi

PH.D CANDIDATE AT FEDERAL UNIVERSITY OF RIO GRANDE DO SUL, BRAZIL

☎ (+55) 51 981325038 | ✉ jggrandi@inf.ufrgs.br | 🌐 www.inf.ufrgs.br/~jggrandi | 📱 jggrandi

## Education

### PhD. in Computer Science

Porto Alegre, RS, Brazil

FEDERAL UNIVERSITY OF RIO GRANDE DO SUL - UFRGS

2014 - Current

- THESIS (PROVISORY TITLE): DESIGN OF COLLABORATIVE 3D USER INTERFACES FOR VIRTUAL AND AUGMENTED REALITY
- ADVISER: ANDERSON MACIEL

### MSc. in Computer Science

Porto Alegre, RS, Brazil

FEDERAL UNIVERSITY OF RIO GRANDE DO SUL - UFRGS

2012 - 2014

- THESIS: MULTIDIMENSIONAL SIMILARITY SEARCH FOR 2D-3D MEDICAL DATA CORRELATION AND FUSION
- ADVISER: ANDERSON MACIEL

### BSc. in Digital Technologies

Caxias do Sul, RS, Brazil

UNIVERSITY OF CAXIAS DO SUL - UCS

2005 - 2011

- THESIS: COLLABORATIVE SPATIALLY AWARE VISUALIZATION OF MEDICAL IMAGES
- ADVISER: ANDERSON MACIEL

## Research Interests

### Human-Computer Interaction

NON-CONVENTIONAL INTERFACES, MULTIMODAL INTERACTION, COLLABORATIVE MANIPULATIONS

### Virtual, Augmented and Mixed Reality

INTERACTION IN VIRTUAL ENVIRONMENTS, PERCEPTUAL STUDIES, HDMS, CAVES

### Medical Applications

SURGERY PLANNING, VISUALIZATION OF INTERNAL STRUCTURES, VOLUMETRIC RENDERING

## Experience

### Research Assistant Intern

Porto Alegre, RS, Brazil

COMPUTER GRAPHICS GROUP - UFRGS

2012 - Current

- SUPPORTED BY CAPES (2012-2016) AND BY THE NATIONAL COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT (CNPQ) (2017)

### Graphics and Interaction Developer

Caxias do Sul, RS, Brazil

URIZEN TECHNOLOGIES

2010 - 2011

### Research Assistant Intern

Caxias do Sul, RS, Brazil

NTAV ARTECNO GROUP

2005 - 2011

- SUPPORTED BY NATIONAL COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT (CNPQ)

## Publications

### Collaborative Manipulation of 3D Virtual Objects in Augmented Reality Scenarios using Mobile Devices (Short paper)

Los Angeles, U.S.A

IEEE SYMPOSIUM ON 3D USER INTERFACES (3DUI)

2017

GRANDI, JERÔNIMO G.; BERNDT, IAGO; DEBARBA, HENRIQUE; NEDEL, LUCIANA AND MACIEL, ANDERSON.

### Design and Evaluation of a Handheld-based 3D User Interface for Collaborative Object Manipulation

Denver, U.S.A

ACM CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS (CHI)

2017

GRANDI, JERÔNIMO G.; DEBARBA, HENRIQUE; NEDEL, LUCIANA AND MACIEL, ANDERSON.

### Collaborative 3D manipulation using mobile phones (Short paper)

Greenville, U.S.A

IEEE SYMPOSIUM ON 3D USER INTERFACES (3DUI)

2016

GRANDI, JERÔNIMO G.; BERNDT, IAGO; DEBARBA, HENRIQUE; NEDEL, LUCIANA AND MACIEL, ANDERSON.

## Multidimensional Similarity Search for 2D-3D Medical Data Correlation and Fusion

Rio de Janeiro, Brazil

CONFERENCE ON GRAPHICS, PATTERNS AND IMAGES. WORKSHOP OF THESES AND DISSERTATIONS (SIBGRAPI)

2014

GRANDI, JERÔNIMO G.; MACIEL, A

## Spatially aware mobile interface for 3D visualization and interactive surgery planning

Rio de Janeiro, Brazil

IEEE 3RD INTERNATIONAL CONFERENCE ON SERIOUS GAMES AND APPLICATIONS FOR HEALTH (SEGAH)

2014

GRANDI, JERÔNIMO G.; DEBARBA, HENRIQUE; ZANCHET, DINAMAR; MACIEL, ANDERSON;

## Disambiguation Canvas: a precise selection technique for virtual environments

Cape Town, South Africa

INTERNATIONAL CONFERENCE ON HUMAN-COMPUTER INTERACTION (INTERACT)

2013

DEBARBA, HENRIQUE; GRANDI, JERÔNIMO G.; MACIEL, A; NEDEL, LUCIANA P.; BOULIC, RONAN

## Anatomic Hepatectomy Planning through Mobile Display Visualization and Interaction

v.173, p.111 - 115

STUDIES IN HEALTH TECHNOLOGY AND INFORMATICS

2012

DEBARBA, HENRIQUE; GRANDI, JERÔNIMO G.; MACIEL, ANDERSON; ZANCHET, DINAMAR J.

## Video Stitching based on Optical Tracking

Ouro Preto, Brazil

CONFERENCE ON GRAPHICS, PATTERNS AND IMAGES. WORKSHOP OF WORKS IN PROGRESS (SIBGRAPI)

2012

GRANDI, JERÔNIMO G.; MACIEL, ANDERSON

## Bratrack 2: Evolução do sistema de rastreamento óptico de alta precisão para integração no projeto SIMTRACK

Rio Grande, Brazil

WORKSHOP EM SISTEMAS EMBARCADOS PARA A INDÚSTRIA DE ÓLEO, GÁS E ENERGIA

2012

GRANDI, JERÔNIMO G.; KUNZEL, GUSTAVO; GREFF, ALEXANDRE; NEDEL, LUCIANA P.

## Interactive spatially aware visualization of medical images - Poster

Geneva, Switzerland

24TH COMPUTER ASSISTED RADIOLOGY AND SURGERY (CARS)

2010

GRANDI, JERÔNIMO G.; MACIEL, ANDERSON

## WindWalker: Using Wind as an Orientation Tool in Virtual Environments

Porto Alegre, Brazil

SYMPOSIUM ON VIRTUAL AND AUGMENTED REALITY (SVR)

2009

GRANDI, JERÔNIMO G.; DEBARBA, HENRIQUE; OLIVESKI, ADRIANO; DOMINGUES, DIANA MARIA GALLICCHIO; MACIEL, ANDERSON.; NEDEL, L. P.

## Artistic and Cultural Production

### Tagued Idols

PRESENTED AT: **8° INTERNATIONAL IMAGE FESTIVAL** (8° FESTIVAL INTERNACIONAL DE LA IMAGEN), MANIZALES, COLOMBIA / **13° NATIONAL LITERARY JOURNEY** (13° JORNADA NACIONAL DE LITERATURA), PASSO FUNDO, BRAZIL / **7° INTERNATIONAL MEETING OF ART AND TECHNOLOGY** (7° ENCONTRO INTERNACIONAL DE ARTE E TECNOLOGIA), BRASÍLIA, BRAZIL.

2008

DOMINGUES, DIANA G.; GRANDI, JERÔNIMO G.; ARTECNO GROUP;

### The Cavern of Trance - Series TRANS-E: my body my blood 1997/2007

PRESENTED AT: **MEMORIES OF THE FUTURE: TEN YEARS OF ART AND TECHNOLOGY IN ITAÚ**

**CULTURAL** (MEMÓRIAS DO FUTURO: DEZ ANOS DE ARTE E TECNOLOGIA NO ITAÚ CULTURAL), SÃO PAULO, BRAZIL / **A PRESENÇA DO CURSO DE ARTES NOS 40 ANOS DA UCS**. UCS CAVE. CAXIAS DO SUL, BRAZIL.

2007

DOMINGUES, DIANA G.; GRANDI, JERÔNIMO G.; ARTECNO GROUP;

## Awards

2017 **Best 3DUI Contest Award**, IEEE 3D User Interfaces (3DUI)

Los Angeles, USA

2016 **Best 3DUI Contest Award**, IEEE 3D User Interfaces (3DUI)

Greenville, USA

2012 **Poster Award - MMVR: Medicine Meets Virtual Reality**, Anatomic Hepatectomy Planning through Mobile Display Visualization and Interaction

Newport Beach, USA

2010 **1st PRIZE - International Congress and Exhibition of Computer Assisted Radiology and Surgery**, Interactive spatially aware visualization of medical images

Geneva, Switzerland

## Technical Knowledge

---

**Languages**, Portuguese (native), English (proficient), Spanish (basic)

**Programming**, C++, C#, Java, R, Latex, Python

**Game/Graphics Engines**, Unity 3D, OpenGL

**Mobile Devices Development**, Android (SDK and NDK), iOS

**I/O Devices**, Mobile Devices, Wiimote, Kinect, touch screens, inertial sensors, Bratrack (tracking system), tiled displays, HMDs, CAVE

**Tools**, Vuforia, QtCreator, Visual Studio, XCode, GIT, Linux, Windows, InkScape, Mac OSX, ITK, OpenCV

## Other Experiences

---

**Reviewer**, Sibgrapi, SVR, SBGames, IHC, CASA, CSBC, WRVA

**Undergraduation Co-Advisor**, 3D Interface for Ultrasound Simulation (2015), Francis M. Mwanz

**Teaching Assistant**, Basic Programming C (2015), Human-Computer Interaction (2014), Cyberspace and Creation in Digital Culture I (2007), Games and Multi-user Worlds (2008), Computer Graphics I (2009)

## References

---

**Anderson Maciel**, Associate Professor at UFRGS, Brazil. Contact: amaciel@inf.ufrgs.br

**Luciana Nedel**, Associate Professor at UFRGS, Brazil. Contact: nedel@inf.ufrgs.br

**Henrique G. Debarba**, Senior Researcher at Artanim, Switzerland. Contact: henrique.debarba@artanim.ch

**Diana Domingues**, Founder and Head of Laboratory of Research in Art and TechnoScience (LART), University of Brasília - UnB, Brazil. Contact: dgdomingues@gmail.com