

Jerônimo Gustavo Grandi

POSTDOCTORAL ASSOCIATE AT DUKE UNIVERSITY, USA

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Education

Postdoctoral Associate

DUKE UNIVERSITY

Durham, NC, United States

2018 - current

- PROJECT: NEXT GENERATION PUBLIC-SAFETY USER INTERFACES

Ph.D. in Computer Science

Porto Alegre, RS, Brazil

FEDERAL UNIVERSITY OF RIO GRANDE DO SUL - UFRGS

2014 - Oct. 2018

- THESIS: COLLABORATIVE 3D INTERACTIONS AND THEIR APPLICATION ON VIRTUAL, AUGMENTED AND MIXED REALITY INTERFACES
- ADVISER: PROF. DR. 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: PROF. DR. 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: PROF. DR. ANDERSON MACIEL

Research Interests

Human-Computer Interaction

3D USER INTERFACES, NON-CONVENTIONAL INTERFACES, HANDHELD DEVICES, MULTIMODAL INTERACTION, COLLABORATIVE INTERACTION

Virtual, Augmented and Mixed Reality

INTERACTION IN VR AND AR ENVIRONMENTS, PERCEPTUAL STUDIES, HMDs, CAVES

Medical Applications

SURGERY PLANNING, VISUALIZATION OF INTERNAL STRUCTURES, VOLUMETRIC RENDERING

Work Experience

Research Assistant Intern

Porto Alegre, RS, Brazil

GRAPHICS, VISUALIZATION AND INTERACTION LAB - UFRGS

2012 - Current

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

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)

Awards

2018	Ph.D. in Computer Science with distinction ("Cum Laude Distinction") , Collaborative 3D Interactions and Their Application on Virtual, Augmented and Mixed Reality Interfaces	Porto Alegre, Brazil
2018	Honorable Mention for Best Paper - IEEE VR Conference on Virtual Reality and 3D User Interfaces , Design and Assessment of a Collaborative 3D Interaction Technique for Handheld Augmented Reality	Reutlingen, Germany
2017	Best 3DUI Contest Award - IEEE 3D User Interfaces (3DUI) , Collaborative 3D manipulation using mobile phones	Los Angeles, USA
2016	Best 3DUI Contest Award - IEEE 3D User Interfaces (3DUI) , Collaborative Manipulation of 3D Virtual Objects in Augmented Reality Scenarios using Mobile Devices	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

Publications

Design and Assessment of a Collaborative 3D Interaction Technique for Handheld Augmented Reality

IEEE CONFERENCE ON VIRTUAL REALITY AND 3D USER INTERFACES

2018

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

3DAthlon: 3D Gestural Interfaces to Support a 3-Stage Contest in VR (Short paper)

IEEE CONFERENCE ON VIRTUAL REALITY AND 3D USER INTERFACES

2018

GRANDI, JERÔNIMO G.; DEBARBA, HENRIQUE; FRANZ, JULIANO; OLIVEIRA, VICTOR; TICONA, ABEL; SOUZA, GABRIELLE; BERTI, IZADORA; VILLA, STEEVEN; NEDEL, LUCIANA AND MACIEL, ANDERSON.

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

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

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)

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 (Poster)

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

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

INTERNATIONAL CONFERENCE ON HUMAN-COMPUTER INTERACTION (INTERACT)

2013

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

Towards a disambiguation canvas (Short paper)

IEEE VIRTUAL REALITY (VR)

2013

DEBARBA, HENRIQUE G.; **GRANDI, JERÔNIMO G.; MACIEL, ANDERSON; 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 (Poster)

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

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)

24TH COMPUTER ASSISTED RADIOLOGY AND SURGERY (CARS)

2010

GRANDI, JERÔNIMO G.; MACIEL, ANDERSON

WindWalker: Using Wind as an Orientation Tool in Virtual Environments

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: **8º INTERNATIONAL IMAGE FESTIVAL** (8º FESTIVAL INTERNACIONAL DE LA IMAGEN),

MANIZALES, COLOMBIA / **13º NATIONAL LITERARY JOURNEY** (13º JORNADA NACIONAL DE

2008

LITERATURA), PASSO FUNDO, BRAZIL / **7º INTERNATIONAL MEETING OF ART AND TECHNOLOGY** (7º

ENCONTRO INTERNACIONAL DE ARTE E TECNOLOGIA), BRASÍLIA, BRAZIL.

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

2007

PAULO, BRAZIL / **A PRESENÇA DO CURSO DE ARTES NOS 40 ANOS DA UCS**. UCS CAVE. CAXIAS DO SUL, BRAZIL.

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

Relevant Experiences

CAVEs Installation and configuration, software and hardware development, tour guide

Laboratory Management Lab leader for 4 year, equipment purchase, organization, installation and skills in technical problem-solving

Technical Knowledge

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

Programming C++, C#, Java, R, Latex, Phyton

Game/Graphics Engines Unity 3D, OpenGL

Mobile Devices Dev. Android (SDK and NDK), iOS

I/O Devices Mobile Devices, Wiimote, Kinect, Touch screens, Tracking system, Tiled displays, HMDs

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

Other Experiences

Reviewer VR, CHI, 3DUI, Sibgrapi, SVR, SBGames, IHC, CASA, CSBC, WRVA

Undergrad. 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, Brazil. Contact: dgdomingues@gmail.com