Daniel Popp Coelho

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Brazilian, married, born in 1991

Education:

University of São Paulo (USP) Master of Science in Biomedical Engineering Dissertation title: "Parallel and self-configuring implementation of the Level Sets segmentation algorithm". Keywords: CUDA, C++, genetic algorithms, image processing	São Paulo, Brazil Sep 2016 – Sep 2020
Federal University of ABC (UFABC) Double degree: Bachelor of Science in Biomedical Engineering and Bachelor in Science and Technology – GPA: 3,9 Thesis title: "Augmented reality visualization of a vocal fold tissue phantom for optical coherence tomography"	Santo André, Brazil May 2010 – Jun 2016
Gottfried Wilhelm Leibniz Universität Hannover (LUH) International exchange student for 14 months (2 semesters) Participation in the Master of Science in Biomedical Engineering Program	Hannover, Germany Feb 2014 – Mar 2015

Experience:

Senior Software Engineer – 4D Pipeline Developed products and plugins related to visualization, asset conversion and management, rendering and more for various enterprise clients. Implemented systems for conversion and processing of 3D mesh, animation and material data of multiple industry standard formats. Optimized systems and workflows related to management of 3D assets and Unreal Engine 4. Keywords: C++, Unreal Engine 4, Python, FBX, glTF, VRED, DeltaGen, Cinema 4D, GLTF, Alias, BIM IFC, USD	Remote Mar 2018 – *Current*
Biomedical Engineer – Customize Life Medical Devices Designed patient-specific, 3D-printable prosthesis, performing tasks such as prototype development with CAD, structural design, material and printing technique selection and 3D printing of the final product. Keywords: CAD, Autodesk Fusion360, Autodesk Meshmixer	Santo André, Brazil Aug 2017 – Mar 2018
Software developer – Medical Harbour Medical Devices Developed software capable of visualization, processing and 3D reconstruction of DICOM medical images. Keywords: C++/CLI, C#, Direct3D, UWP	Santo André, Brazil May 2016 – Mar 2018
Software developer intern – Navegatium Medical Devices Developed software capable of visualization, processing and 3D reconstruction of DICOM medical images. Keywords: C++/CLI, C#, Direct3D	Santo André, Brazil Aug 2015 – Apr 2016
Research project – Institut für Mechatronische Systeme – LUH Title: "OCT-based Augmented Reality for Tumor Visualization in Live Camera Views". Developed during an exchange student program at the Institute for Mechatronic Systems of Leibniz Universität Hannover. Keywords: C++, VTK, ITK, multimodal registration	Hannover, Germany Oct 2014 – Mar 2015
Research project – Biomedical Engineer - UFABC Title: "Physiological Control of an Implantable Ventricular Assist Device". Scholarship from Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP). Developed during undergraduate program at UFABC. Keywords: C, Arduino, electrocardiogram	Santo André, Brazil Oct 2012 – Sep 2013

Publications:

Author of research paper – Biomedical Engineer - UFABC
Title: "Parallel Implementation of the DRLSE Algorithm", presented at the 17th
International Conference on Image Analysis and Recognition (ICIAR 2020), Portugal,
2020, https://doi.org/10.1007/978-3-030-50516-5_3.

Portugal
Jun 2020

Co-author of research paper – Biomedical Engineer - UFABC
Title: "Physiological Control of an Implantable Maglev Centrifugal Blood Pump Using
Disturbance Force Observer", presented at the 7th Technology and Medical Sciences
International, Belo Horizonte, Brazil, 2012.

Santo André, Brazil
Jul 2012

Skills:

Programming languages: C++ (proficiency), C (proficiency), Python (proficiency), Rust
(experience), Typescript (experience), Javascript (experience), C# (familiarity), MATLAB
(familiarity)

Software and IDEs: Unreal Engine 4 (proficiency), Visual Studio 17/19 (proficiency), Visual
Studio Code (proficiency), QtCreator (familiarity), Pycharm (familiarity), Unity (familiarity)

Libraries and toolkits: OpenGL (experience), WebGL (experience), Vue (experience),
WebAssembly (familiarity), DirectX (familiarity), VTK (experience), CUDA (experience)

Others: Git (proficiency), Perforce (experience), Jenkins CI (experience), Arduino
(experience), UNIX-based operating systems (familiarity), Microelectronic circuit design
(familiarity)

Languages:

Brazilian Portuguese: First language, C2

English: Fluent, C2

German: Intermediate, B2 (TestDaF on Feb 10, 2015: Leseverstehen 4, Hörverstehen 5,
Schriftlicher Ausdruck 3, Mündlicher Ausdruck 4)

Interests:

3D graphics, VR and AR, WebAssembly, artificial Intelligence, space and astronomy,
gaming.