André **Antonitsch**

COMPUTER SCIENTIST, MSc · COMPUTER GRAPHICS

Plön, Germany

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I am a Computer Scientist with 8+ years of experience working as a programmer and R&D researcher in state-of-art projects relating to Computer Graphics, Computer Vision and AI. This taught me how to be a quick learner, adaptable and self-driven. I am passionate trying out new solutions to problems and working in a team of curious people. My main interests nowadays are Computer Graphics (mainly rendering) and Simulations.

Personal Projects & Skills —————————————————————————— (links on project titles)

Vulkan Renderer
A Generic Renderering Library I wrote using C++ and Vulkan. Currently, it supports both forward and deferred rendering styles, custom shaders and custom rendergraphs for post-processing and other effects.
I am still adding features and implementing modern algorithms as i work on it.

Personal Website
my contact info and links to my personal projects and experiments. I built it using Javascript (Three.js)

Languages
Portuguese (native speaker), English (C1), German (B1)

Experience —————————————————————————————————

Freelance
Brazil -> Plön, Germany

- Relocation to Germany. *(approx. 1 months)* — *Nov 2021*
- German Studies. Acquired B1 Certificate. *(approx. 7 months)*
- Tutoring Computer Graphics, Programming and Machine Learning. *(approx. 2 year)*
- Studied CG on Web platforms (Javascript, Threejs) *(approx. 1 year)*
- Studied Vulkan and modern Graphics APIs. *(ongoing, approx 1.5 years.)*
- Wrote my own Vulkan based Rendering Library. *(ongoing, approx 1 year.)*

Lenscope
Remote, (São Paulo. Brazil)

COMPUTER VISION/GRAPHICS SPECIALIST — *Jul 2021 - Nov 2021*

- R&D of Computer Vision and Graphics algorithms applied to the optometry business.
- Worked directly with a PhD teammate, embedded into a larger AGILE team of 7 developers and 2 managers.
- Project in Python with Keras, Pandas and Numpy.

Virtual Humans Lab (PUCRS)
Porto Alegre, Brazil

RESEARCHER — *Nov 2017 - Mar 2021*

- Created BioClouds, a large crowd simulation model. Resulted in 5 published papers. Made in C# using Unity3D.
- Modeled disaster situations coupling Fluid Simulation and Crowd Simulation.
  Integrated Fluid Simulations written in C++, with a Unity3D based Crowd Simulation written in C#.
- Created Computer Vision tools, to analyze street camera footage, written in Python using OpenCV.

HP inc. / PUCRS
Porto Alegre, Brazil

R&D INTERNSHIP — *May 2016 - Oct 2017*

- Started in an AGILE team of 3 interns and 1 technical lead. Built a tool in Python to label video datasets.
- Migrated to an AGILE team of 6 members, composed of 4 interns, 1 machine learning specialist, and 1 manager.
- Implemented the Computer Vision system that integrated a video camera with gesture commands
- Both projects in C++ with OpenCV, Java and Python.

NLP Lab (PUCRS)
Porto Alegre, Brazil

RESEARCH INTERNSHIP — *Aug 2015 - Apr 2016*

- Participated in publishing SUMMIT++, an annotated corpus for the Portuguese language.
- Work in a team for 2 interns, 3 PhD candidates. Project in Java and Python.

Degrees —————————————————————————————————

MSc, Computer Science
Porto Alegre, RS, Brazil

PONTIFICAL CATHOLIC UNIVERSITY OF RIO GRANDE DO SUL (PUCRS) — *Mar 2019 - Mar 2021*

- Awarded a full ride merit scholarship.

BSc, Computer Science
Porto Alegre, RS, Brazil

PONTIFICAL CATHOLIC UNIVERSITY OF RIO GRANDE DO SUL (PUCRS) — *Dec 2018*