



Hernaldo Jesús Henríquez Núñez

SOFTWARE ENGINEER | TECHNICAL ARTIST

I am Computer Scientist with a focus in Computer Graphics. My main area is Technology but I'm also familiar with Art and Design. I consider myself a life-long learner, always seeking for chances to create, research and design new things and I'm more general than specialized to only one area. I try to have a service attitude, believing that helping each other out is the way to grow.

Profile

Technical

- 10+ years of programming experience in different languages
- Developed a Raytracer with multi-threading, caustics, animation with physics simulation and more
- Developed a prototype tool for Procedural Map World creation

Art and Design

- Understanding of the creative process and pipeline
- Familiar with concepts of color, light, composition, motion, time. As well as usability and user experience.
- 1.5 years as Teaching Assistant for Interactive Design (UI/UX, AR, VR)

Communication

- Total of 2.5 years helping students from different disciplines as a Teaching Assistant: many Engineering areas, Game Design, Graphic Design and Animation
- Have worked in teams from other disciplines (Psychology)
- 3+ years of experience in communication with clients, stakeholders, and teammates

Professional Experience

UI Technical Artist | Dec 2022 - Present

Globant. Viña del Mar, Chile. (Remote)

Work in the Madden NFL video game from EA Sports. Implemented UI through code using ActionScript and C++, fixed bugs, and documented parts of our system.

Full Stack Developer | Mar - July 2018

Papinotas. Santiago, Chile.

Papinotas is a web app for schools. Developed a module for attendance statistics and designed a module for grading. Used Ruby on Rails and React (JavaScript).


Software Engineer | Oct 2016 - Feb 2018

Magnet. Santiago, Chile.

Developed and designed web apps for enterprises using Python, JavaScript, Django and Odoo ERP. Including all operations of retail and risk management.

Updated October 2023

Contact

 **website:** <https://hernaldo.me>
linkedin.com/in/hernaldo-henriquez

Education

M. Sc., Visualization (Computer Graphics) | 2021

Texas A&M University. TX, USA.

B. Sc. in Eng., Computer Science | 2015

Pontificia Universidad Católica de Chile.

Santiago, Chile.

(Ingeniería Civil en Computación)

Exchange Student, Computer Science | Spring 2013

The University of Texas at Austin. TX, USA.

Skills

Programming Languages:

Advanced: Python (6 years)

Intermediate: JavaScript (4y), Ruby (2y), HTML (4y), SQL (3y), C++ (1.5y)

Previous experience: Java (1.5y), C# (1.5y)

Software and Technologies:

Git | OpenGL | Unreal Engine | Perforce | three.js | Maya | Houdini | Motion Builder | GLSL | RenderMan | PyQt | Substance Painter | Photoshop | Blender | Motion Capture (Opti Track)

Operating Systems:

Linux, Windows, Mac

Languages:

Spanish (Native)

English (Professional proficiency)

Academia

Graduate Teaching Assistant | Sep 2019 - May 2021

Texas A&M University. TX, USA

- VIST370 (Interactive Virtual Environments) | Jan – May 2021:

Helped students with AR and VR design and development.

- VIST270 (Computation for Visualization) | Sept – Dec 2020:

Helped students learn Python, OpenGL and Linux.

- VIST305/405 (Interactive Design Studio) | Sept 2019 - May 2020:

Helped students with UI/UX design and programming for web and mobile apps.

Research Scholar | Jan - Mar 2016

Texas A&M University. TX, USA

- Developed an image recognition prototype for Research in Agriculture using Python, OpenCV and Android.

- Developed a voice commands recognition prototype.

Research Assistant | Aug - Dec 2014

Pontificia Universidad Católica de Chile. Santiago, Chile

- Assisted a team of Psychology researchers with technical issues using an Opti Track Motion Capture system, Linux and Virtual Machines.

- Used, maintained, and improved a custom 3D graphics software written in Python, OpenGL and PyQt, that displayed the animations from Motion Capture and processed the motion data.

Teaching Assistant | Sep - Dec 2012

Pontificia Universidad Católica de Chile. Santiago, Chile

- Helped around thirty freshman students to learn Java in a Computer Lab 3 hours per week.

- Evaluated Java projects from the students.

Awards

Best in Graduate Research - The Vizzie Awards VIZAGOGO 27

| Oct 2020

Department of Visualization at Texas A&M

For a prototype app of Weather Data Visualization in VR with Unreal Engine, in a group of 4.

Short-Term Research Abroad Scholarship | Jan - Mar 2016

School of Engineering at Pontificia Universidad Católica de Chile

Covered all expenses for 2 months abroad to the US. Given to about 10 students from the school that year.

Relevant Coursework

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| - Computer Graphics (undergrad and grad) | - Life Drawing |
| - Software Engineering | - Color Theory |
| - Pattern Recognition | - 3D Animation and Modeling |
| - Image Synthesis | - Virtual Reality |
| - Physically Based Modeling (audited) | - Human Computer Interaction |
| - Distributed Systems | - Time-Based Media |

Research Experience

3+ years in projects about:

- Computer Graphics
- Virtual Reality
- Motion Capture
- Computer Vision
- Machine Learning / Optimization
- Robotics

Associations

- GRIMA (Group for Machine Learning at PUC Chile)
- TAMU ACM SIGGRAPH