



Hernaldo Jesús Henríquez Núñez

TECHNICAL ARTIST | SOFTWARE ENGINEER

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 TA for Interactive Design (UI/UX, AR, VR)

Communication

- Total of 2.5 years helping students from different disciplines as a TA: 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

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. Including all operations of retail and risk management.

Software Engineering Intern | Jan - Feb 2015

GoPlaceIt. Santiago, Chile.

Created a Ruby On Rails app that generates reports with stats about real estate using a large database.

Updated on September 2021

Contact

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[linkedin.com/in/hernaldo-henriquez](https://www.linkedin.com/in/hernaldo-henriquez)

Education

M. Sc., Visualization (Computer Graphics) | Aug 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 (5.5y)

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 4 | Unity |

Maya | Houdini | Motion Builder |

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 with the basics of Linux/Unix, Python and OpenGL.

- 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 and Android. Also developed a voice command recognition prototype.

Research Assistant | Aug - Dec 2014

Pontificia Universidad Católica de Chile. Santiago, Chile

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

- I also used, maintained, and improved a 3D graphics software written in Python and PyQt, that processed information from the Motion Capture system.

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

Our project was chosen best in that category for the academic year 2019-2020 inside the Department of Visualization at Texas A&M. We were 4 people and worked on a prototype that showed weather data in a Virtual 3D Environment using Virtual Reality in Unreal Engine.

Short-Term Research Abroad Scholarship | Jan - Mar 2016

Based on best Research background inside the School of Engineering at Pontificia Universidad Católica de Chile to travel to Texas A&M.

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