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 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 March 2022

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 (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 | 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 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*
Department of Visualization at Texas A&M
Worked in a prototype for weather data visualization using Virtual
Reality in Unreal Engine in a group of 4.

Short-Term Research Abroad Scholarship | *Jan - Mar 2016*
School of Engineering at Pontificia Universidad Católica de Chile
Based on best Research background only given to about 10 students
that year to travel to Texas.

Relevant Coursework

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