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. Valparaíso, Chile.
Work remotely developing UI for a well-known AAA game, coding in ActionScript. Part of a team of hundreds of developers and all the complexity that involves.

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 March 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 (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 | 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

- 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