

# NICOLÁS ORTEGA

Git: <https://git.themusicinnoise.net/>

Website: <https://themusicinnoise.net/>

E-Mail: [nortega@themusicinnoise.net](mailto:nortega@themusicinnoise.net)

## TECHNICAL SKILLS

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|---------------------------|---|
| <b>Computer Languages</b> | C, C++, Bash/Shell, x86(_64) Assembly, PHP, Java, SQL, $\LaTeX$ |
| <b>Human Languages</b>    | English, Spanish, Portuguese, Esperanto                         |
| <b>Tools</b>              | GNU/Linux, GDB, Git, GnuPG, CMake, GNU Make                     |
| <b>APIs</b>               | OpenMP, SDL2, OpenGL 2/3, OpenDHT, GMP                          |

## EDUCATION

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**University of Jaén** *Sept. 2016 - Present*  
*B.S. in Computer Engineering*

- Courses on computer architecture, using assembly and architecture emulators.
- Course in algorithm design & optimization.
- Introduction to operating systems and kernel resource management.
- Data structures and algorithm design in C++.
- Development of graphical applications using OpenGL 2.1

## EXPERIENCE

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**Conservation Corps. Minnesota** *June 2014 - July 2014*  
*Summer Youth Corps.* *St. Croix State Park, MN, USA*

- Collaboration with other crew members to achieve daily goals.
- Shared living environment with other crew members.
- Maintenance of natural parks and lake entry points.

**DMUX Project** *Sept. 2015 - Nov. 2016*  
*Software Developer & Project Co-Leader* *Remote*

- Collaborating with other developers to create a 3D derby-style combat shooter game in C++.
- Working with three dimensional rendering and physics using Bullet Physics and Irrlicht.
- Maintaining the version control of the project using the Git collaboration tool.
- Developing and documenting the networking mechanics of the game.

## PROJECTS

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### **Indivisible**

A program written in C that generates prime numbers in a parallelized manner using OpenMP, storing them in memory, and optionally in a file upon termination.

### **Colonel**

A small kernel project in order to learn how an operating system works from the ground up. Supporting x86 architectures.

### **NeoComm**

A light library using OpenDHT that attempts to create a framework for a decentralized and encrypted chat room network.