

Jonatan Pérez Rodenas

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Master in Maths. Experience in CAD/CAM software development

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Experience

MAR 23 – PRESENT | SENIOR REACT FRONTEND | SEDDI

- Develop CAD tools for web (JS/TS), mathematical algorithms, integrate modern UI/UX desing, scalable tools (ReactJS, Redux), colaboration with backend developer and QA team, agile methodologies (kanban), working with international team

JUN 21 – FEB 23 | WEB CAD DEVELOPER | VOXELCARE

- Develop CAD tools for web (JS/TS), mathematical algorithms, scanning systems, integrate modern UI/UX desing, scalable tools (ReactJS, Redux), agile methodologies (kanban)

JAN 08 – MAY 21 | SOFTWARE ENGINEER | INESCOPE

- Develop CAD tools for desktop application (C++), develop Rhino plugins (C#), mathematical algorithms, scanning systems, user interfaces (DevExpress components), robotic projects.

Summary

My work experience spans a long history of programming mathematical algorithms, working with a wide variety of geometric structures, and applying my skills in both 2D and 3D environments. I have worked with both OpenGL and WebGL for CAD application development. I have also utilized libraries such as three.js and SMLIB (a tool for NURBS modeling). I contributed to the creation of mathematical libraries that enable handling both simple and complex data structures (such as meshes and surfaces). For editing and manipulating these mathematical entities, I have implemented techniques like Marching Cubes for creating polygonal surfaces from voxelized data, smoothing techniques based on Gaussian or Laplace, decimation techniques, triangulation methods, etc.

I am well-versed in 3D modeling software such as Blender and Rhinoceros. Specifically for Rhinoceros, I have developed numerous plugins focused on shoe design and other purposes. Furthermore, I have worked with data acquired through three-dimensional scanning systems, applying noise filtering and reconstruction algorithms such as Iterative Closest Point (ICP) to optimize and align point clouds. Additionally, I've contributed to texture generation for 3D models and configured rendering scenarios, significantly enhancing the visual appearance of models through the use of texture maps.

I have the ability to adapt to new technologies. Evidence of this has been my transition to web development. I have dedicated the last three years of my career to improving my skills as a web developer becoming a senior frontend, specially working with React. I have experience working with international teams.

Skills

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|-------------------------------|--|---------------------------|
| · JavaScript, TypeScript | · NextJS, Fetch API, Axios, GraphQL | · Docker, MongoDB, MySQL |
| · HTML5, CSS3, XML, DOM, JSON | · GitHub, GitLab, SourceTree, SmartGit | · C++, C# |
| · ReactJS, Redux | · Agile methodologies, Asana, Jira | · VS, VS Code, C++Builder |
| · NodeJS | · Figma | · TDD methodology |

Languages

- Spanish (Native)
- English (High level writing and reading. Fluent conversation)

Education

SEP 01 – DEC 07 | MASTER IN MATHEMATICS

- Master in mathematics, University of Alicante.

ACHIEVEMENTS/CERTIFICATES

- | | |
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| · ReactJS + Redux +ES6 (Udemy) | · Type B driver's license |
| · Typescript: The complete Developer's Guide (Udemy) | · The JavaScript Bible - JavaScript Bootcamp (Udemy) |