

## Paulina Victoria Valenzuela Hormazábal

Civil Engineer in Bioinformatics

### Contact



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## Personal profile

I am an organized, proactive and responsible person. I am highly motivated to continue improving my skills and grow professionally in the research area

## Participation

webinar "Computational Sciences at the service of problems in medicinal and environmental chemistry" -Universidad Católica del Maule, Talca

SOFARCHI Congress - Universidad de Magallanes, Punta Arenas, Chile.

## Work experience

### **Research Assistant**

Bioinformatics and Computational Chemistry Laboratory, Universidad Católica del Maule. | January 2021 - May 2022

- -Pharmacophore design.
- Protein-ligand molecular docking.
- Energy calculations with MM-GBSA method.
- Bash and R programming.
- Use of Virtual Screening methodology.

# Pharmacoinformatics and drug design laboratory. Department of Pharmacology. Faculty of Biological Sciences. University of Concepción. | June 2022 - Present

- Protein-ligand molecular docking.
- Energy calculations with MM-GBSA method.
- Pharmacophore design.
- -Preparation and analysis of molecular dynamics.
- Programming in Python and Bash.
- Data processing with knime

### Academic data

### Universidad de Talca

2017 - 2021 Civil Engineer in Bioinformatics with mention in Molecular Simulation.

Final project: Implementation of a strategy based on theoretical-computational methods for the search and design of new inhibitors of the *Helicobacter pylori* urease enzyme.

### Universidad de Concepción

2023 - Present Master in Biochemistry and Bioinformatics

### Skills

- Perform protein-ligand and protein-protein molecular docking.
- Preparation and analysis of systems for Molecular Dynamics.
- Pharmacophore design.
- Perform MM-GBSA free energy calculations.
- Virtual Screening methodology for drug rationing.
- Programming in R, Python and Bash.
- Proficiency in knime for data processing.
- Good handling of unix terminal.
- Handling of visualization software: Maestro-Schrödinger, VMD, Pymol, ChimeraX and AutoDock Vina.