

# Sebastian Villarroel

Software Engineer | Web Development | Game Development

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🌐 [/sebastian-villarroel](#)

## WORK EXPERIENCE

### APPLY DIGITAL – Software Engineer

March 2023 – Present Day

Santiago, Chile · Toronto, ON, Canada

Built enterprise-grade digital experiences leveraging MACH architecture (Microservices, API-first, Cloud-native, Headless) and atomic design principles, delivering scalable front-end platforms for clients including Harvard Business School, Black & Veatch, and Curran.

### CHEK – Senior Full-stack Developer

July 2022 – March 2023

Santiago, Chile

Integrated Banco Ripley's loan services into the Chek digital wallet, and developed a credit card management module for a new Mastercard product, covering lifecycle features from account display to debt payments.

### REIGN – Senior Full-stack Developer

October 2020 – June 2022

Santiago, Chile

Developed multi-region websites for Millicom (Tigo) using headless CMS architecture, and built administrative portals for Santander Más Millas to manage prospects, partners, and campaign operations.

### FERROCARRIL DE ANTOFAGASTA A BOLIVIA (FCAB) – Capstone Project

May 2020 – Sept 2020

Santiago, Chile

Developed a web application to manage rail personnel licenses and certifications, including an online quiz system for theoretical exam administration and validation.

### REIGN – Senior Full-stack Developer

February 2020 – March 2020

Santiago, Chile

Built a dashboard system integrating with Jira Server API to calculate and visualize agile project metrics, supporting data-driven sprint reviews and retrospectives.

### UNIVERSIDAD CATOLICA DEL NORTE – Senior Full-stack Developer

July 2019 – August 2019

Santiago, Chile

Optimized a predictive statistical model for the Academic Vice-rectory using machine learning, and built a web interface for academic data visualization and access.

## PROJECTS

### Project – Estimation of Regional Price Index

Sept 2019 – Jan 2020

Antofagasta, Chile

Collaborated with the Dean of Economics and Business Management to estimate Chile's Regional Price Index (RPI) using machine learning models and web scraping for data collection.

## PROFILE

Software Engineer transitioning into Game Development, with 4+ years of experience building scalable, data-driven systems and interactive applications. Skilled in C++, C#, Unreal Engine, and Unity, I bring strong foundations in debugging, gameplay mechanics, engine architecture, and performance optimization. Experienced in cross-disciplinary collaboration with designers, artists, and producers to deliver engaging, stable, and technically sound experiences.

## EDUCATION

### HUMBER POLYTECHNIC

Advanced Diploma in Game Programming (2027)

Toronto, ON, Canada

### UNIVERSIDAD CATÓLICA DEL NORTE

Bachelor's Degree in Computer Science and Engineering (2021)

Antofagasta, Chile

## SKILLS

### GAME DEVELOPMENT

C++, C#, Unreal Engine, Unity, Gameplay Programming, Engine Development, Physics Simulation, Object-Oriented Programming, Design Patterns, Rendering, Shaders, Gameplay Mechanics

### PROGRAMMING & SOFTWARE DEVELOPMENT:

JavaScript, TypeScript, Node.js, React, Next.js, Content Management Systems, NestJS, REST APIs, Git, Agile Development

### TOOLS & FRAMEWORKS:

Jetbrains IDEs, Unreal Blueprints, Unity Editor, GitHub, Jira, CI/CD Pipelines, Docker.

## LANGUAGES

English, Spanish