Federico Iván Bilotti Designer and Programmer of Virtual Simulators

fedebilotti2001@gmail.com
linkedin.com/in/federico-bilotti-62b206256
CABA, Argentina
github.com/FedericoBilotti
11-6324-0478

PROFESIONAL PROFILE

Passionate programmer with experience in game development in Unity and C#. My expertise is in C#, although, I also have knowledge on C++ and Python. Specialized in object-oriented programming and use of design patterns to create clean and scalable code. I have knowledge of DOTS, to use multiple threads to optimize application performance. Additionally, I have knowleadge of MySQL and Firebase. I stand out for my commitment to continuous improvement, always seeking to learn beyond what is known to provide innovative and quality solutions.

PROJECTS

04/2025 – 04/2025 **Chatbot Google Calendar,** Python

Created for a simple interaction with Google Calendar, leeting you add, delete or see the events that the user has programmed.

- Natural language processing to interpret user commands and translate them into actions (add, delete, query).
- Coordination of multiple agents to route user queries and requests.
- Authentication with OAuth 2.0 and consumption of the Google Calendar API to manage events.
- Validation of date/time formats and error handling to avoid calendar conflicts.

09/2023 – 12/2024 **Denos,** Final Proyect - Unity HDRP

First-person body horror game in which you subject yourself to unimaginable tortures by infecting yourself with alien larvae, causing mutations in your body that you can use to solve puzzles in an organic world controlled by an omnipresent entity.

- Programmed for consoles (PlayStation, Xbox) and PC.
- Creation of custom tools to optimize the artistic workflow.
- Implementation of complex events, IK animations and mechanics.
- Development of a scalable save system with support for additive scenes.
- Creation of a light Dependency Injection System.
- Optimization of graphical and memory resources.
- Dessign patterns.

02/2025 – 02/2025 **AStar-Job-Burst,** Unity

Implementation of the AStar pathfinding algorithm and a Custom Native Container (MinHeap), using Unity Job System and Burst Compiler.

- Processing 125 agents in parallel per frame on a 100x100 cell terrain, achieving over 100 FPS on average.
- Parallel path calculation using the JobSystem
- Custom Native Container (MinHeap), optimizing route calculation.
- Grid-based navigation
- Data and object-oriented programming.

EDUCATION

2021 – 2024
CABA, Argentina
Designer and Programmer of Virtual Simulators, Escuela Da Vinci
Unity, C#, C++, Object-Oriented Programming (OOP), Design Patterns, Artificial Intelligence, LINQ, Unreal Engine

2015 – 2019
CABA, Argentina
Bachelor of Visual Arts, Colegio y Oratorio San Francisco de Sales

SKILLS

- Python
- Langchain
- Chroma
- FastAPI
- Unity
- C#
- C++
- Git / GitHub
- MySQL / SQL
- Firebase
- Trello

SOFT SKILLS

- Problem Solving
- Group Communication
- Effective Communication
- Team Work

LANGUAGES

- Spanish Native
- English B1