

LORENZO TORELLI

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Tools and Gameplay programmer with 5 years of professional experience

EXPERIENCE

BEHAVIOUR INTERACTIVE - DEAD BY DAYLIGHT TOOLS PROGRAMMER

SEPTEMBER 2022 - PRESENT

- Contributed to the **test automation framework** for detecting and fixing **gameplay** and **system** issues.
- Implemented support for **gameplay automated tests** running on **PS5 & XSX**
- Led the efforts to **rewrite** the **submission** tools for **game developers** to include proper pre-submission **validation** and a simpler deployment workflow.
- Independently developed an Unreal Engine **C++ cheat management tool** to aid **Dead by Daylight** developers and QA in **executing dev commands** on separate **platforms** such as the **Switch**, reducing **QA** time

UNITY - SOFTWARE DEVELOPER

DECEMBER 2020 - JANUARY 2022

- Refactored the Unity **Licensing Server** allowing for differing and more extensible license types for enterprise users, such as 1-30 day **offline-capable floating licenses**.
- Implemented **c++** native credential manager access for the Unity **Package Manager** to enable connecting through a **proxy** on a **closed network**.

SCALEPAD - SOFTWARE DEVELOPER

APRIL 2019 - DECEMBER 2020

- Led initiative to design **workstation management tool** to swap development team from Windows to Linux, enabling > 30-minute workstation setup time.
- Refactored monolithic library into **20 single-responsibility modules** for microservices.
- Redesigned **CI/CD** pipelines with **Buildkite** and **Ansible**, reducing pipeline time from 30-50 min to 5-10 min
- **Infrastructure as code** for the deployment of the backend networking architecture using **Terraform/Terragrunt** and **Kubernetes**.

PERSONAL PROJECTS

Context & Satchel - Unreal Engine 5.3 code plugins

Context is a **contextual entity action library** that takes inspiration from the **Gameplay Ability System** to allow the execution of decoupled hierarchical context-based actions using an entities **Gameplay Tags**

Satchel is a data-oriented **item and inventory library** that uses **Context** to define item interactions

Entity Component System (C#) - github.com/He1Engine/He1.ECS

Implements **data abstraction** for **entities** using **data-oriented concepts** and containerization of **entity components** improving component execution efficiency **3x**, allowing **300K components** across **100K entities** while maintaining **60+ fps**

SKILLS

- Unreal Engine, Unity, GMS2, MonoGame, C#, C++, Java, Python, UE Blueprints, Bash, Powershell