Pawel Wilczewski

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PROFESSIONAL EXPERIENCE

Jaworski Software Solutions

Contract | February 2024 - Present

.NET Developer

.NET 8 | C# 12 | ASP.NET Core | Entity Framework Core | PostgreSQL | Blazor

- Led set up and implementation of key requirements of node editing web app.
- Applied clean architecture, strongly typed ids, accurate abstraction and relevant design patterns to ensure rapid iteration, maintainability and trivial extendability.
- Used source generation to reduce boilerplate, improve performance and increase type safety.
- Significantly reduced database round trips using caching and optimising domain models.

XR Games

Full Time | June 2023 - Present

C#9 | Unity | Azure | Oculus Quest | PlayStation

Gameplay Programmer

- Implemented networked narrative system driving game logic with ~150 events and objectives.
- Engineered flexible and robust spawning and combat systems with user-friendly tooling.
- Smoothened out and shortened by 50% level loading to meet strict platform requirements.
- Safely applied asynchronous approaches to optimise hot paths and reduce lag spikes to provide constant 72+ FPS.
- Integrated platform-specific hardware features such as headset rumble, eye tracking and adaptive triggers for PSVR2®.

Self-employed

Part Time | June 2021 - Present

Game & Add-on Developer

Python | C++ | Blender | Unreal Engine

- Developed and published 3 financially successful extensions for Blender with 12 updates adding new features and ensuring compatibility. Received close to 5-star rating and very positive reviews on all released products.
- Developing large-scale, easy-to-use, networked Unreal Engine FPS template project.
- Using implementation-agnostic design, allowing easy integration of custom behaviour.
- Applying clean code and SOLID principles allowing easy maintenance and testing.
- Creating intuitive and feature-rich tooling for rapid prototyping and polishing.

EDUCATION

Computer Science, BSc (First-Class Honours)

September 2020 - June 2023

University of Leeds

Software Engineering | Distributed Systems | Secure Computing | Programming for the Web

SKILLS

C# | C++ | Python | HTML | JavaScript | CSS | .NET | ASP.NET | Entity Framework | Blazor | Tailwind | Unity | Unreal Engine APIs | OOP | FP | OOD | Clean Code | Design Patterns | Full Stack Development | Advanced Networking | Memory Management Asynchronous & Parallel Code | Cross-platform | Optimisation & Performance | Managing Technical Debt | Accurate Abstractions

PROJECTS

General-Purpose Node Editor Web App (C#, ASP.NET, Blazor)

2024

- Web application developed to facilitate client's need to promptly create, modify and reuse custom workflows repeatedly.
- Implemented trivial integration of external and internal APIs with minimal setup through dependency injection.
- Maximised parallelism of code execution, increasing performance and scalability.

Starship Troopers: Continuum (C#, Unity)

2024

- VR first-person shooter, multiplayer, co-op, story-driven game set in universe of famous IP.
- Core gameplay programming, from implementing game logic, through optimising and polishing, to implementing clean and predictable cross-platform networked functionalities.
- Working closely with designers, developed advanced features from concept to completion.

ModularFPS (C++, Unreal Engine 5)

2022 +

- Package of flexible components and assets for rapidly creating high-quality FPS games with minimal effort.
- Applied good design principles supported by design patterns and best practices to achieve optimal user experience, high level of flexibility and maintainability.

Blender Add-ons (Python, Blender)

2022 +

- 3 published Blender extensions providing enhanced modelling, exporting and settings management.
- Utilised self-developed automatic packaging and unit testing tools to future-proof and improve iteration times.

SELF-DEVELOPMENT

Mastering Iterative Object-oriented Development in C#

Zoran Horvat | 2024

Introducing gradual changes while keeping code stable, breaking down problems to manageable sub-problems.

Refactoring to Design Patterns by Example

Zoran Horvat | 2023

Noticing and applying design patterns to improve architecture of problems originally solved in a naive way.

LANGUAGES INTERESTS English full professional proficiency, Polish native Programming | Football | Games | CNC Machines