

Peter Leontev

Entrepreneur & Game Tools & Tech Programmer

Contacts

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Website: peterleontev.com

Skills

Core: C++, Unreal Engine 4, Game Tools development, Systems design, Algorithms, Data Structures, Debugging, Git, SVN, CI

Familiar: DCC tools (Houdini/Maya/Blender), C#, Python, SQL & NoSQL Databases, Math, Rendering algorithms, CPU/GPU frame rate optimization, Perforce, Linux

Work experience

Founder, Game Tools & Tech Programmer
at [Peter Leontev Game Tools](http://peterleontev.com)

Nov 2019 – Current

I help clients around the world make great Game Tools & Technology. My most significant work:

1) Client: <https://www.primalspacesystems.com> (game streaming technology)

Multiple level streaming optimizations to reduce load hitches, render thread optimizations (DirectX) to achieve stable framerate, virtual texturing R&D and extensions to stream texture data from the server to the client (UE4, C++)

2) Client: <http://www.etoron.com> (cloth & faction design toolkit)

Game tools development to increase efficiency of in-house pipeline (cooking & packaging assets, assets importers/exporters), internal system to handle loading images into application at runtime to eliminate hitches (UE4, C++)

3) Client: <https://conundrum.ai> (industrial automation via AI)

Framework to simulate visual defects on razors to achieve required visual fidelity (UE4, C++, shaders)

Senior Unreal Engine Programmer (Generalist)
at [1C Entertainment](http://1centertainment.com)

Oct 2018 – Nov 2019

[King's Bounty 2](#). Results (Unreal Engine 4, C++, Python):

1) Tools development: road editor (texture atlases support, World Composition integration, no Houdini required), realtime blending system for dynamic lighting, FMOD preview support, landscape utilities in open world context

2) Engine modifications: landscape tools customization, blueprint snapping support (to speed up level design workflow), occlusion culling R&D

3) Codebase adaptation to YWYU ideology to improve development workflow and decrease compilation times (by 2-2.5x)

4) Frame rate optimization using built-in CPU/GPU profiling tools to fix Garbage Collection hitches, Async Loading time and Level Streaming bottlenecks

5) Build pipeline and CI support, batch processing of game content

6) Mentoring new members of the team to increase efficiency of onboarding process

Technical lead

at Screwdriver Entertainment

Feb 2017 – Sep 2018

[POSTWORLD](#) is Hardcore Action RPG with non-linear story and possibility to replace character body parts on the fly (Steam, 2018). What I did (Unreal Engine 4, C++ & Blueprints):

- 1) Architecture development of gameplay systems (modular characters, modular weapons, inventory, etc.) and game flow
- 2) R&D of procedural terrain generation and procedural object placement to speed up level design
- 3) UMG UI logic (in-game interfaces)
- 4) Editor extensions and plugins to speed up level design workflow

Backend Python Developer

at [Panoramik Inc.](#)

Dec 2015 – Jan 2017

My job responsibilities were:

- 1) Maintenance and support of mobile games backend: [Forge of Gods](#) and [Mighty Party](#) (Flask, Python, GAE, NoSQL + SQL Databases)
- 2) General improvements of the backend logic in terms of performance and scalability, with respect to time complexity, sync/async trade-off (memcache, taskqueues, cron)
- 3) Experimental migration from AppEngine to Appscale (open-source implementation of AppEngine) to significantly reduce the server costs (based on container-based virtualization techs)

Education

BSc, Applied Math, [Tomsk Polytechnic University](#) (2010 – 2014)

Professional development, Algorithmic Bioinformatics, Saint-Petersburg [Bioinformatics Institute](#) (2014 – 2015)