Leontev Peter

Generalist C++/Unreal Engine developer

Contacts

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Work experience

Generalist C++ Programmer at 1C Online Games (1C Entertainment dep.)

Oct 2018 - Present

Unannounced cross-platform RPG (PC, PS4, Xbox One).

Work in progress (Unreal Engine 4, C++ and Blueprints):

- 1) Tools development: semi-automatic road editor (World Composition, texture atlases support, does not require proprietary DDC tools), dynamic lighting blending system, Niagara proxy meshes builder
- 2) Engine modifications: landscape tools customization, blueprint snapping support (to speed up level design workflow)
- 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 GC, Async Loading and Level Streaming bottlenecks
- 5) Build pipeline and CI support, batch processing of game content

Technical lead at Screwdriver Entertainment

Feb 2017 – Sep 2018

<u>POSTWORLD</u> is Hardcore Action RPG with non-linear story and possibity to replace character body parts on the fly.

What I did (Unreal Engine 4, C++ and 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
- 5) Large scale levels profiling and optimization

Backend Python Developer at Panoramik Inc.

Dec 2015 - Jan 2017

My job responsibilities were:

- 1) Maintenance and support of mobile games backend: <u>Forge of Gods</u> and <u>Mighty Party</u> (Flask, Python, GAE, NoSQL + SQL DBs)
- 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)

Algorithmic Researcher Intern at Center For Algorithmic Biotechnology at SpbSU

Jul 2015 - Aug 2015

My research project consisted of the following steps:

- 1) Find and annote 16S rRNA genes in SPAdes assembly graph (via barrnap and Infernal). In terms of computer science the task was to find small substring in very large string represented as so called De Bruijn graph
- 2) Write new graph path finding procedure in SPAdes environment to extract useful information about 16S rRNA genes for their further annotation
- 3) Compare both approaches to find the best in terms of genome assembly quality metrics

C++ Software Developer Intern at <u>Unipro</u>

Jul 2013 - Aug 2013

While being an intern I:

- 1) Implemented a few modules to use bioinformatics software called UGENE through web-service called Galaxy (via C++ Qt). This way one can easily skip installation phase of UGENE and just use its functions through Galaxy
- 2) Wrote a plugin to run UGENE tools installed on remote server and get results back (using Java). Server was needed since those tools usually require huge database for particular analysis (bunch of human genomes take a lot of disk space)