Alexander Potapov

Taipei, Taiwan · alexander.potapov.w@yandex.ru ·

https://www.linkedin.com/in/alexander-potapov/ https://github.com/MomoDeve

PROFESSIONAL SUMMARY

Software Engineer with 3 years of experience in software development of realtime graphics applications, both in 2D and in 3D. Have strong skills in low-level graphics programming in most APIs, including Vulkan, DirectX and OpenGL. During the last year working closely as a 2D graphics engineer with a Frontend and UI/UX team at a startup, developing next-generation spreadsheet software. During the course of my work,I led the development of many features in rendering that became major components of the product.

PROFESSIONAL EXPERIENCE

Frontend Software Engineer

May 2022 - Now

The Bricks Inc

At Bricks we are creating a next-generation spreadsheet software

- Built and maintained a spreadsheet renderer which became the foundation of the spreadsheet web application
- Launched Tables, Charts and Filtering features, that made the product stand out from the competition
- Worked closely with UI/UX team to make product visually appealing, which was highly appreciated by our users

C++ 3D Graphics Engineer

August 2021 - May 2022

Eagle Dynamics

Digital Combat Simulator World (DCS World) - Flight simulation video game

- Built a new Vulkan rendering backend for the game's engine, speeding up the average framerate by 15-20%
- Created a cross-compiler shader pipeline into SPIR-V format to allow usage of FX shaders in a Vulkan renderer
- Moved graphics code to render graph architecture, reducing game memory consumption by ~10%

C++ Software Engineer

October 2020 - June 2021

Nanosemantics Lab

Chatbots for business

- Migrated the language parser to a new framework increasing parsing time by 2-3x, making overall application up to 50% faster for the user
- Launched multiple features in language processing that allowed product team to implement much more precise commands for the chat bots

EDUCATION

 Higher School of Economics University, Moscow, Russia Bachelor's degree, 2024

OPEN-SOURCE PROJECTS

- MxEngine (900+ starts) 3D game engine (deferred rendering, PBR, physics, audio, editor tools, serialization)
- <u>VAL</u> (70+ stars) Render Graph-based Vulkan rendering library (automatic barriers, shader reflection)
- <u>Graphics-Developer-Roadmap</u> (500+ stars) collection of links to educational materials for graphics programming (maintainer)

SKILLS

3D Graphics (Vulkan, DirectX, OpenGL, Render Graph, C++), Frontend (React, TypeScript, WebGL, WebAssembly), Collaboration (Jira, Figma, Git, GitHub), Startups