

Aleksandr Potapov

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Portfolio: <https://momodeve.com> · Github: <https://github.com/MomoDeve> ·

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SUMMARY

AI Product Engineer with 5+ years of experience building user-facing AI applications, interactive web products, and performance-sensitive systems. Strong frontend and product focus, with full-stack experience designing APIs and cloud-backed workflows to ship AI features from concept to production.

SKILLS

Frontend: TypeScript, React, SolidJS

AI Applications: LLM-powered workflows, prompt engineering, LLM evaluation, agent orchestration

Backend: Node.js, API design, AWS CDK, S3, DynamoDB

Testing & Reliability: Playwright, Sentry

2D/3D Graphics: WebGL/WebGPU, C++, Vulkan API, HLSL/GLSL

Other: Python, DSL parsing

PROFESSIONAL EXPERIENCE

The Bricks, Inc - Software Engineer, AI Product & Frontend

May 2022 – Present

Stack: TypeScript, React/SolidJS, LLM toolchain, Node.js, AWS CDK, Playwright, Amplitude

- Built core product features for an AI-first spreadsheet/BI web application, including interactive data visualization, dashboard workflows, and spreadsheet experiences used by 100K+ total users.
- Designed and shipped AI-generated auto-refreshable dashboards, combining sandboxed query execution, dependency tracking, and backend orchestration to turn user intent into live product features.
- Designed supporting Node.js APIs and worked with AWS CDK to provision cloud infrastructure, including S3 and DynamoDB resources powering AI-driven workflows.
- Partnered with product team to redesign key workflows based on user behavior data from Amplitude, increasing subscription conversion from 1% to 6% within a year.
- Improved engineering velocity and reliability by introducing Playwright automation and LLM-based evaluation, reducing average feature development time by 25%.

Eagle Dynamics - 3D Graphics Software Developer

August 2021 - May 2022

Stack: C++, Vulkan, DirectX11, HLSL/GLSL

- Implemented a **Vulkan rendering backend** to replace an older DirectX 11 one; improved performance by **~15% on average** and enabled adoption of modern rendering features (render-graph approach, modern shaders).
- Created an automated pipeline converting legacy **FX/DirectX shaders to SPIR-V**, saving dozens of hours during migration.
- Optimized GPU memory allocation and usage; leveraged buffer sharing and texture memory aliasing to reduce VRAM usage by **~10%**.

Nanosemantics Lab - C++ / Python Software Developer

October 2020 - June 2021

Stack: C/C++, Python

- Migrated a handwritten C parser to **Lark (Python)**, reducing the parsing codebase by **2x+** and accelerating feature development.
- Extended a custom chatbot DSL with **conditionals, loops, and function calls**, enabling more complex interaction logic; benefited **60%+** of company customers.

EDUCATION – BACHELOR'S DEGREE

National Research University, Higher School of Economics (HSE Moscow)

2020-2024

- Major: Software Engineering, Computer Science Faculty

OPEN SOURCE PROJECTS

- [MxEngine](#) – 3D game engine (author), **1.2K+ stars** / Deferred rendering, PBR, physics, runtime code reload.
- [Graphics Developer Roadmap](#) – curated graphics programming resources (maintainer), **1.2K+ stars**.