

VINOGRADOV SERGEY

Software and ML developer

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📍 Dolgoprudny, Russia

🍪 BiscuitsLayer



EXPERIENCE

Simulation Engineer

X-Labs AI

📅 Oct. 2024 – Ongoing 📍 Moscow, Russia

- Developed Aruco marker detection in ROS2
- Developed remote Radio Car control via Bluetooth with Arduino and bird-eye view localization
- Worked with Carla Simulator and Autoware Universe ecosystem

Backend Developer

ScaleGen AI

📅 Oct. 2023 – Oct. 2024 📍 Mumbai, India (remote)

- Developed API Gateway setup pipelines using AWS and GCP
- Developed billing service and price estimation for various cloud computing instances
- Responsible for main CLI project (built in Python)
- Added on-prem support and networking for main project

Graphics Engineer

Huawei

📅 July 2021 – Oct. 2023 📍 Moscow, Russia

- Built ground-truth raytracer to verify approximations for main project
- Improved Vulkan API validation layers for main project
- Added shaders for different materials processing in PBR algorithms
- Responsible for CI/CD tool for mobile devices testing and performance measurements

EDUCATION

School of Data Analysis, Department of Innovation and High Technology, MIPT + Yandex

Ongoing

📅 Sept. 2023 – Ongoing 📍 Dolgoprudny, Russia

- Major in Data Science
- Successfully passed NLP, CV, Self-Driving cars, MLOps and DevOps courses
- Participated in mobile development and AI hackathons
- Developed a startup for travellers for efficient route building using AI

Department of Radio Engineering and Cybernetics, MIPT

Diploma with honors

📅 Sept. 2019 – Aug. 2023 📍 Dolgoprudny, Russia

- Major in Mathematics and Computer Science
- Mostly involved in compiler and architecture simulator development
- Diploma on the topic "Mesh Simplification using algorithms and GNNs"

TECH SKILLS

Math/Linear Algebra Probability and statistics
Physics and Theoretical mechanics
Algorithms Multithreading/Concurrency
ML/DL Computer Vision NLP
Reinforcement Learning Self-Driving Cars

SOFTWARE SKILLS

C/C++ Assembly Python Dart/Flutter
Docker Ansible Linux Gitlab CI
OpenGL/Vulkan OpenCL/CUDA Assimp
Unreal Engine RenderDoc SmartPerf
CMake/Make Clang/LLVM IR Google Test
GNU Bison/Flex
PyTorch/LibTorch/PyTorch Lightning
OpenCV GGML Numpy/Scipy
AWS/GCP/Datacrunch Nginx Prometheus
Grafana/Loki/Promtail Swagger/Fast API

PROJECTS

SmartTravel

- An application to build efficient routes for travellers, based on reviews and suggestions
- Flutter/Dart, Kotlin, Swift, Travelling services APIs (TripAdvisor/KudaGo/Yandex Maps)

SmartCar

- OpenGL based simulation of a drone with lidar installed, using ray tracing technology, reinforcement learning and computer vision
- C++, OpenGL, Assimp, LibTorch, Q-Learning

Scheme language with LLVM IR Generator

- Raytracer on self-made functional programming language with LLVM IR Frontend and C++/OpenGL Backend
- C/C++, Google Test, GNU Bison, GNU Flex, LLVM IR, OpenGL

LANGUAGES

Russian (native)
English (C1)
German (A2)

