Iovlev Yuliy

Birthdate: 19 May 1995
E-mail: iovlev2@gmail.com
Website: iovlev-cv.com

Working experience

2022 – Present: Adalisk

C++ Software Developer.

- Designing and developing CAD/CAM software tailored for dental restoration, including user interfaces, algorithms for design automation, and integration with digital dentistry tools.

- Implementing features that allow users to accurately model dental restorations, such as crowns, bridges, and nightguards based on 3D scans of patients' teeth.

- Utilizing advanced rendering techniques to create highly realistic images of dental restorations, helping dental professionals visualize the final product before manufacturing.

Key technologies: C++, Boost, Python, OpenGL, Electron.

2019 – 2022: Rubius

Full Stack Software Engineer.

- Support microservices architecture in Google Cloud Platform, collecting and analysis metrics via BigQuery and DataStudio (Docker, Kubernetes, Gcloud, Python).

- Implementing effective algorithms for visualization large point clouds ($\approx 5*10^7$ faces) in browser (WebGL, Three.js, GLSL).

- Developing tools for processing and manipulation with large point clouds using such technics like octrees and levels of details (React.js, Node.js, Three.js).

- Skeletal animation. Implementing web interface for manual point cloud and 3d hand model adjusting (Three.js, GLSL).

Key technologies: JavaScript, React.js, Node.js, Three.js, WebGL, MySQL, PostgreSQL.

2017 – 2019: Rubius

Software Developer.

- Implementing algorithms for processing data from the Intel RealSense Depth Camera, detecting light sources on the obtained images (C++, OpenCV).

- Support and developing hand pose estimation utility based on images and depth maps (C++, Assimp, PointMatcher, Python).

- Large point clouds ($\approx 5 \cdot 10^7$ faces) preprocessing, labeling, segmentation, planes detection (floor, ceiling, walls, etc). Introduced multithreading computation and loading source data.

- Implementing panorama stitching algorithm for indoor navigation software (OpenCV).

Key technologies: C++, Python, OpenCV, Boost, Assimp, OpenGV, Docker, Linux.

Technologies

Programming languages: C++, JavaScript, Python, T-SQL, C#.

Database management systems: MsSQL, MongoDB, MySQL, PostgreSQL.

Technologies: C++ (Boost, STL), JavaScript (React.js, Vue.js, Three.js), OpenGL, Node.js, Docker, WebGL, HTML5, CSS3.

Version control systems: Git, Mercurial.

Education

2017 – 2019: Tomsk Polytechnic University,

Master's degree in Computer Science. Diploma with honors.

2013 – 2017: Tomsk Polytechnic University,

Bachelor's degree in Computer Science. Graduate diploma.

Key awards

- Finalist of international artificial intelligence programming contest Russian AI Cup 2020;

- Participant of an ACM ICPC Semi-finals NEERC (5 times from 2013 to 2017, as a member of Tomsk PU team);

- Multi-time winner and top-3 in University and Regional students programming contests (from 2016 to 2019).

Languages

Russian (native), English (technical, intermediate), Spanish (beginner).