

Andrey Steblyakov

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Education

Bachelor of Computer Science, Portland State University, Portland, OR

9/2020 - Present

- GPA: 3.97
- Expected graduation: June 2024

Skills

- C, C++, Python
- Visual Studio/VS Code/Vim
- GitHub (handle: dreysco)
- Linux (Ubuntu)
- Worked with windows rendering (SDL 2)
- Developed rudimentary websites with HTML, CSS, and JS
- Bilingual: English and Russian

Experience

Software Engineering Intern, Portland State Aerospace Society, Portland, OR

6/2023 - 10/2023

Software for OreSat 0.5, Oregon's second satellite.

- Created a Flask API to simplify command delivery and testing, allowing PSAS to send and receive commands through web browsers, improving accessibility and usability.
- Contributed to the OreSat Linux App Framework (OLAF), completing the star tracker app to determine attitude and capture Earth and space photos.

Personal Projects

Sparky (C++ game engine with SDL 2)

2021 - Present

- Implemented an architecture pattern (ECS) designed to minimize cache misses.
- Translated principles of classical mechanics into a discrete, frame-based simulation.
- Designed an algorithm that prunes unnecessary nodes in a graph used for entity pathfinding, resulting in a large runtime improvement.
- Built a polygon class capable of resolving collisions, triangulating, rotating around the centroid, and identifying convex edges, vertice orientation, self-intersections, and collinear edges.
- Implemented a component capable of reading and organizing polygons from an SVG file into a reference grid.