SEOJIN LEE

Victoria, BC | https://github.com/SeojLee | seojinlee0070@gmail.com

EDUCATION

University of Victoria, Faculty of Engineering and Computer Science
Bachelor of Science in Computer Science (BSc) | Victoria, BC

SKILLS

Languages: Python, C/C++
Graphics & Rendering: OpenGL, GLSL
Databases: MySQL, InfluxDB
Platforms & Tools: Git, Ansible, SSH, Linux, YAML
Testing & QA: CI, Jenkins, TDD/BDD

WORK EXPERIENCE

Visual Concepts – 2K Games
Graphics R&D Programmer Intern| Full Time ***05/2026 – 08/2026***
Graphics R&D Programmer Intern| Full Time ***01/2026 – 04/2026***

- Engineered a point based model space prerasterization pipeline to bypass 2x2 hardware quad inefficiencies on micro geometry, optimizing and extending Take Two patented Continuous Level of Detail technology (US11978162B2). Developed surface sampling algorithms executing via compute shaders and inline loops to translate geometry into optimized point buffers, minimizing point usage while guaranteeing gap free uniform coverage across all LODs.
- Architected a multi backend C++ rendering sandbox parallelized with OpenMP, integrating CPU software, OpenGL, and prerasterization paths to directly replicate proprietary 2K engine asset processing and patented CLOD geometry behavior.
- Built a live interactive topology testing framework for real time algorithm evaluation. Engineered the environment to support dynamic vertex manipulation and mesh generation while instantly recalculating coverage, surface point sampling, and algorithm outputs on the fly.
- Built a mathematical testing and validation suite utilizing Delaunay triangulation to compute analytically exact ground truth coverage, verifying rasterizer correctness across every rendering backend.

High Energy Physics Research Computing Group, University of Victoria
Software Developer | Full Time ***09/2025 – 12/2025***

- Extended Shoal's CVMFS proxy discovery system to support Varnish alongside Squid via AMQP/RabbitMQ, preserving backward compatibility with existing Squid deployments. Fixed RabbitMQ connectivity and upstream-type filtering bugs in Shoal's message pipeline.
- Built features for CloudScheduler (Django/OpenStack VM lifecycle manager): database views, condor poller host ID tracking, freeze/pause controls, and service catalog cleanup.
- Wrote Ansible playbooks for automated provisioning of Linux servers running Shoal and CloudScheduler on the Arbutus cloud platform, supporting ATLAS (CERN) and Belle II (KEK) experiment workloads.

UVic University Systems
CHD Analyst Senior Assistant | Part Time ***05/2025 – 12/2025***
CHD Analyst | Full Time ***01/2025 – 04/2025***

- Provided UVic's students/faculty with frontline IT support: resolved hardware/software issues, managed ticketing systems, and tracked productivity metrics across phone, email, Teams, and in-person channels totalling over 5,000 tickets handled..
- Supported university lab and e-Transact system refreshes while contributing to development in future co-op training materials.

Canadian Tire
Sports Associate | Full Time ***06/2024 – 09/2024***
Associate | Full Time ***06/2022 – 09/2022***

VOLUNTEER EXPERIENCE

Private Tutoring
Math Tutor | Weekly ***09/2024 – 01/2025***
Island Health
Activities Volunteer | Weekly ***06/2022 – 03/2023***
EDAUS Seasonal Management
Landscaping and Cleaning team | Seasonal ***06/2017 – 06/2022***