

# MINKI CHO

[truth0629@gmail.com](mailto:truth0629@gmail.com) ◇ [LinkedIn](#) ◇ [Website](#) ◇ [GitHub](#)

## EXPERIENCE

---

### Royal Fogger

Dec 2023 – Jul 2024

*Software Engineer*

- Built C++ automation tools to replace manual workflows, reducing end-to-end processing time by **30%** via batching, streamlined file I/O, and failure-safe execution.
- Developed validated data-processing utilities CSV/Excel ingestion, edge-case handling integrated into Excel-based tax reporting pipelines.
- Partnered with non-engineering stakeholders to translate operational requirements into maintainable, production-ready tools (clear logs, guardrails, and reproducible runs).

### DigiPen Institute of Technology, Redmond, WA

Sep 2025 – Dec 2025

*Teaching Assistant – CS 330: Algorithms*

- Mentored students on C++ programming and algorithmic problem solving (complexity, correctness, and practical optimization) during weekly office hours.
- Reviewed and provided technical feedback on student codebases, focusing on performance pitfalls, data structures, and clean implementation.

## SELECTED TECHNICAL PROJECTS

---

### MSRF Engine (Real-Time Framework) – C++17/20, SDL, DirectX 11

Jan 2026 – Present

*Systems / Performance Engineer*

- Built a real-time engine/framework emphasizing low-latency update loops, performance instrumentation, and maintainable subsystem boundaries.
- Architected a lock-aware **multithreaded job system** with dependency-safe dispatch and frame-bound synchronization, improving core utilization and reducing main-thread bottlenecks in update-heavy scenes.
- Implemented cache-conscious **memory pools** for high-frequency engine objects (transient/frame-lifetime allocations), replacing heap paths to reduce allocation churn, fragmentation, and frame-time variance under load.

### 3D Puzzle Project – Unreal Engine 5, Perforce

Sep 2024 – May 2025

*Optimization / Gameplay Systems*

- Profiling-driven optimization: improved runtime performance by **70%** by analyzing frame-time breakdowns and reducing per-frame cost via targeted code changes, tick/logic trimming, and level streaming refinements.

### Graphics / Math Demos – OpenGL, GLSL

Jan 2023 – Apr 2023

*Graphics / Tools Engineer*

- Built interactive OpenGL/GLSL demos validating 3D math and rendering pipelines (coordinate spaces, transforms, camera/projection), including procedural geometry, terrain, and shadow mapping.

## SKILLS

---

**Languages:** C++ (C++17/20), C, Python

**Core:** Optimization, Profiling, Multithreading, Data Structures/Algorithms, 3D Math (linear algebra)

**Tools:** Git, Perforce, CMake, Visual Studio, Windows/Linux, ImGui, Jira/ClickUp

**Graphics/Engines:** OpenGL/GLSL, DirectX 11, Unreal Engine 5, Unity

## EDUCATION

---

### DigiPen Institute of Technology, Redmond, WA

Apr 2026

- B.S. in Computer Science (RTIS), Minor in Mathematics
- Dean's Honor List (Fall 2024, Spring 2025, Fall 2025)
- **Relevant Coursework:** Algorithms, Numerical Analysis, Linear Algebra, Optimization (Math/CS)