

JOHN ILIADIS

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TECHNICAL SKILLS

Languages: C/C++, Python, Javascript, Java, C#
APIs/Libraries: Vulkan, OpenGL, ImGui, GLM, FreeType
Developer Tools: Git/GitHub, CMake, CLion, RenderDoc, Jira
Software Engineering: OOP, Data Structures, Algorithms, Concurrency
STEM: Linear Algebra, Calculus, Vector Calculus, Mechanics

EDUCATION

Swinburne University of Technology

Bachelor of Computer Science

GPA: 3.64/4.00

Hawthorn, Victoria

Aug. 2022 – July 2025

Melbourne Polytechnic

Advanced Diploma of Engineering

Preston, Victoria

Feb. 2020 – Dec. 2021

PROJECTS

Ypsilantis Rendering Engine | C++, Vulkan

- Built a Vulkan physically based forward+ rendering engine, comprising over **14,000+ lines of code**.
- Implemented **advanced rendering techniques**, such as image based lighting, bloom, SSAO, shadow mapping, skybox, MSAA, and HDR.
- Boosted rendering performance by incorporating **optimizations techniques**, such as instanced rendering, compute-based light culling, async loading, and face culling.
- Developed a **custom editor** with a functional scene graph, infinite grid, transformation gizmos, world-space light icons, drag & drop, and popups.

Projectile Motion Simulator | C++, OpenGL, ImGui, FreeType

- Developed a **physics-based simulator** for modeling motion in two dimensions.
- Implemented a 2D batch renderer to **optimize draw calls**.
- Implemented **custom text rendering** using FreeType for font rasterization.
- Created interactive vector, graph, and trajectory **visualizations** for analyzing the projectile's motion.

Next Home | React, Tailwind, Fast API, D3, Seaborn, Pandas, Scikit-learn

- Developed a real-estate app for **forecasting housing market dynamics**.
- Built a **D3.js dashboard** to present dynamic, interactive insights from AI model predictions.
- Processed over **2 million real estate records** with Pandas, boosting model accuracy and reducing bias.
- Used the Seaborn library to **analyze the dataset** and **visualize feature relationships**.
- Trained a price prediction model using various machine learning algorithms, achieving **80% accuracy**.

WORK EXPERIENCE

Warehouse Team Member

Archeiothiki SA

Managed daily warehouse operations including scanning, order picking with lifts, stocking shelves, and palletizing using electric equipment.

March 2022 – Aug. 2022

Athens, Greece

Trades Assistant

Iliadis Renovations

Assisted with construction tasks including demolition, material handling, tool operation, and site clean-up.

Feb. 2020 – Dec. 2021

Melbourne, Australia

CERTIFICATIONS

AWS Certified Cloud Practitioner

Dec. 2023