



(Nixon) Yi Heng

Cheng

GRAPHICS ENGINEER ·
TECHNICAL ARTIST

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SKILLS

Languages Rust, C#, WGLSL, HLSL, GLSL, Python, Typescript, C++, Dart, Java, PHP, R

Expertise Simulation, Animation, Graphics, UI, Parallel/Multithreading, IoT, AI

EXPERIENCE

Foresight Spatial Labs

Canada

SOFTWARE DEVELOPER

Oct. 2025 - Present

- Develop cutting edge engineering softwares using Bevy and Egui.

Rust Malaysia

Malaysia

Co-Host

Nov. 2023 - Present

- Help organize events, give talks, mentor, etc.

23 Bulbs

UK

SENIOR GRAPHICS ENGINEER

Oct. 2025 - Present

^ GRAPHICS ENGINEER

Sep. 2020 - Sep. 2025

- Develop GPU accelerated softbody physics engine.
- Tools & pipeline for softbody authoring.
- Craft beautiful visuals with custom rendering pipelines, shaders, etc.

Configura

Malaysia

R&D SOFTWARE ENGINEER

July. 2025 - Sep. 2025

- Develop the next generation of CET using masonry and vello.
- Develop POC webview using ReactJS.

Hedra

US

SOFTWARE ENGINEER

Mar. 2024 - Jul. 2024

- Create animation systems for generating keyframe animations that can be imported and exported.
- Deal with different types of animation e.g. character rig, blend poses, flame poses, transform, etc.
- All in the Bevy game engine using Rust.

Streamline Studios

KL, Malaysia

INTERN GAME PROGRAMMER

May. 2022 - Aug. 2022

- Develop Blender addon tools for artists.
- Contributed to Bake n Switch project.

OPEN SOURCE PROJECTS

MotionGfx

<https://github.com/voxell-tech/motionongfx>

Procedural motion graphics creation tool made using Bevy. (Highly inspired by Motion Canvas and Manim)

Velyst

<https://github.com/voxell-tech/velyst>

Interactive vector-based Typst content creator using Vello and Bevy.

Lumina

<https://github.com/nixonyh/lumina>

A top down, fast paced, objective based, PvP game, written in Rust, using the Bevy game engine, with custom global illumination solution and a fully vector graphics rendered UI.

Bevy Motion Matching

https://github.com/voxell-tech/bevy_motion_matching

A machine learning based motion matching animation system.

Boom Boom

A survival bombing game developed entirely using Unity DOTS.

<https://github.com/nixonyh/boomboom>

Omni Twin

A digital twin made in Unity for disaster awareness and prediction with custom GPU accelerated flood simulation system.

<https://github.com/nixonyh/omnitwin>

For a whole list of projects, head to <https://github.com/nixonyh> (my GitHub profile) or <https://github.com/voxell-tech> (Voxell GitHub profile) to have a look!
For a whole list of all my games, head on to <https://nixon-voxell.itch.io/> for a look!

EDUCATION

Asia Pacific University of Technology & Innovation (APU)

BACHELOR OF SCIENCE (HONOURS) IN COMPUTER GAMES DEVELOPMENT

Cumulative GPA: 3.95 / 4.00

Aug. 2022 - Present

Asia Pacific University of Technology & Innovation (APU)

DIPLOMA IN INFORMATION & COMMUNICATION TECHNOLOGY WITH A SPECIALISM IN SOFTWARE ENGINEERING

Cumulative GPA: 3.80 / 4.00

Jun. 2020 - Jul. 2022

AWARDS

Certificates: <https://www.linkedin.com/in/nixonyh/details/honors/>

APICTA 2025 Awards

- Winner

Nov. 2025

ACM SIGGRAPH KL Extra Credits 2025

- 3rd Place

Sep. 2025

MDEC PDTI Outstanding Student Category 2023

- 1st Place

Mar. 2024

2023 4th All American DAVINCI International Innovation and Invention Expo

- Gold Medal
- ATIP Special Award
- OCIIP Special Award
- TISIAS Special Award

Sep. 2023

DB-SNUbiz Global Startup Challenge 2023

- Finalist

Sep. 2023

2023 INNOVERSE Innovation & Invention Expo

- Gold Medal
- INNOPA Special Award
- Canadian Spacial Award of Excellence

Aug. 2023

The 12th World Invention Creativity Olympic 2023

- Gold Award
- TISIAS Special Award
- TUMMIAD Special Award

Jul. 2023

Virtual Innovation Competition 2023

- Gold Medal

Jun. 2023

34th International Invention, Innovation & Technology Exhibition

- Silver Medal

May. 2023

Hilti IT Competition 2023

- Semi-Finalist

May. 2023

TALKS

Parallel Programming (Rust Malaysia)

- https://www.linkedin.com/posts/nixonyh_rust-parallel-programming-talkworkshop-april-activity-7187841...

Beauty of Shaders Talk (APUGDC)

- https://www.instagram.com/p/Ctfxlu0vD3k/?img_index=2

TEDx - Simulating Millions of Particles in a Digital Twin (BATxAPU Week)

- <https://twitter.com/AsiaPacificU/status/1534062323346083840>

MEDIA & PRESS RELEASES

The Star (MDEC PDTI Outstanding Student Category 2023)

- <https://www.thestar.com.my/news/education/2024/04/28/record-five-mdec-awards-for-apu>

The Star (Gold Medal @ Invention Innovation Competition in Canada 2023)

- <https://www.thestar.com.my/starpicks/2023/11/16/next-gen-game-development-for-next-gen-professionals>

Open Gov (Gold Medal @ 12th World Invention Creativity Olympic 2023)

- <https://opengovasia.com/rescueai-smart-city-disaster-management/>

APU News (MDEC PDTI Outstanding Student Category 2023)

- <https://www.apu.edu.my/news/winning-habit-continues-apu>

APU News (Gold Medal @ 12th World Invention Creativity Olympic 2023)

- <https://www.apu.edu.my/news/disaster-management-ai-powered-drone-wins-gold-medal-wico-2023>

APU News (1st Runner Up @ Intel AI Global Impact Festival 2023, 3rd Runner Up @ Petronas CHESS Symposium 2023)

- <https://www.apu.edu.my/news/11-awards-prestigious-research-and-innovation-competitions-apu-students-...>

APU News (Silver Medal @ ITEX 2023)

- <https://www.apu.edu.my/news/apu-researchers-and-staff-received-7-awards-innovation-itex-23>