



(Nixon) Yi Heng Cheng

COMPUTER GRAPHICS ENGINEER · TECHNICAL ARTIST

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SKILLS

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

Expertise Real-time Physics Simulation, Animation, Motion Graphics, Graphics Programming, Parallel/Multithreading, Deep Learning, VFX, Bevy Engine, Unity3D, Unreal Engine

EXPERIENCE

Rust Malaysia

Co-Host

- Co-host of Rust Malaysia. Help organize events, give talks, mentor, etc.

Malaysia

Nov. 2023 - Present

23 Bulbs

PHYSICS SIMULATION ENGINEER

- Develop GPU accelerated cloth simulation engine.
- Tools & pipeline for cloth/softbody authoring.

UK

Sep. 2020 - Present

Hedra

ANIMATION PROGRAMMER INTERN

- 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.

US

Mar. 2024 - Jul. 2024

APU Game Development Club

HEAD OF EVENTS

- Organize and manage events for the club.

KL, Malaysia

Feb. 2023 - April. 2024

Fiverr

GRAPHICS PROGRAMMER

- Work on various client projects.

Remote

Jun. 2020 - Aug. 2023

Streamline Studios

INTERN GAME PROGRAMMER

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

KL, Malaysia

May. 2022 - Aug. 2022

OPEN SOURCE PROJECTS

Lumina

A top down, fast paced, objective based, PvP game, written in Rust, using the Bevy game engine.

<https://github.com/nixon-voxell/lumina>

Bevy MotionGfx

Motion graphics creation tool in Bevy. (Highly inspired by Motion Canvas and Manim)

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

Velyst

Interactive Typst content creator using Vello and Bevy.

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

Boom Boom

A survival bombing game developed entirely using Unity DOTS.

<https://github.com/nixon-voxell/boomboom>

Bevy Motion Matching

A machine learning based motion matching animation system.

https://github.com/kahboon0425/bevy_motion_matching

For a whole list of projects, head to <https://github.com/nixon-voxell> (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/>

MDEC PDTI Outstanding Student Category 2023

Mar. 2024

- 1st Place

2023 4th All American DAVINCI International Innovation and Invention Expo

Sep. 2023

- Gold Medal
- ATIP Special Award
- OCIP Special Award
- TISIAS Special Award

DB-SNUbiz Global Startup Challenge 2023

Sep. 2023

- Finalist

2023 INNOVERSE Innovation & Invention Expo

Aug. 2023

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

The 12th World Invention Creativity Olympic 2023

Jul. 2023

- Gold Award
- TISIAS Special Award
- TUMMIAD Special Award

Virtual Innovation Competition 2023

Jun. 2023

- Gold Medal

34th International Invention, Innovation & Technology Exhibition

May. 2023

- Silver Medal

Hilti IT Competition 2023

May. 2023

- Semi-Finalist

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/starpics/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 (Gold Medal @ 12th World Invention Creativity Olympic 2023)

- <https://www.apu.edu.my/media/news/2939>

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

- <https://www.apu.edu.my/media/news/2911>

APU News (Silver Medal @ ITEX 2023)

- <https://www.apu.edu.my/media/news/2869>