(Nixon) Yi Heng Cheng

Computer Graphics Engineer · Technical Artist

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Skills

Programming 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

Physics Simulation Engineer
London, UK
23 Bulbs
Sep. 2020 - Present
- Develop GPU accelerated cloth simulation engine.
- Tools & pipeline for cloth/softbody authoring.

Head of Events
KL, Malaysia
APU Game Development Club
Feb. 2023 - April. 2024
- Organize and manage events for the club.

Graphics Programmer
Remote
Fiverr
Jun. 2020 - Aug. 2023
- Work on vaiours client projects.

Intern Game Programmer
KL, Malaysia
Streamline Studios
May. 2022 - Aug. 2022
- Develop Blender addon tools for artists.
- Contributed to Bake n Switch project.

Education

Asia Pacific University of Technology & Innovation (APU)
*Cumulative GPA: **3.95** / 4.00*
Bachelor of Science (Honours) in Computer Games Development
Aug. 2022 - Present

Asia Pacific University of Technology & Innovation (APU)
*Cumulative GPA: **3.80** / 4.00*
Diploma in Information & Communication Technology with a Specialism in Software Engineering
Jun. 2020 - Jul. 2022

Open Source Projects

Bevy MotionGfx
https://github.com/nixon-voxell/bevy_motiongfx
- Motion graphics creation tool in Bevy. (Highly inspired by Motion Canvas and Manim)

Bevy Vello Renderer
https://github.com/nixon-voxell/bevy_vello_renderer
- A minimal integration for rendering vector graphics using Vello in Bevy.

Unity TTS
https://github.com/nixon-voxell/UnityTTS
- Text to speech in Unity.

Unity NLP
https://github.com/nixon-voxell/UnityNLP
- Natural language processing in Unity.

Unity Audio Visualizer
https://github.com/nixon-voxell/UnityAudioVisualizer
- Audio visualizer in Unity using Job System, Burst Compiler, and VFX Graph.

Awards

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

2023 4th All American DAVINCI International Innovation and Invention Expo
Sep. 2023
- Gold Medal
- ATIP Special Award
- OCIIP 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

Beauty of Shaders Talk (APUGDC)
- https://www.instagram.com/p/CtfxIu0vD3k/?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 (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 (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