

Hoàng Minh Thanh

Senior Creative Developer

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I'm passionate about WebGL and rendering every pixel on <canvas> context. With hands-on experience from multiple React and Three.js projects, I am well-suited for the Senior Creative Developer role at CodeCrush and capable of contributing to the development of high-quality, interactive 3D web experiences.

Summary

- **Proficient in Three.js, WebGL and Web Technologies:** openhuman-ai/renderengine, humanmodel.pages.dev/Code, GLSL Shader, faceanimation.github.io, hairrich.github.io/Code, React ThreeFiber, Skeleton Animation, ...

Vast experience of multiple React web project: ([MillionScope](#), [GENEALeaderboard](#), [Cortexpod](#), [MetaPet](#)),... Hands-on experience in optimization scalable production 3D web assets.

- **Skilled in Blender & Maya:** Experienced in modeling, rigging, texturing, optimizing, and profound understanding [GLTF JSON](#) Structure for exporting web assets. [Unity render](#), [Blender render](#).

Skilled in Unity (Play my game [Pucca Runner](#))

- **Comprehensive understanding Computer Graphics:** *Keyword learned:* Ray Tracing in One Weekend, Subsurface scattering, Rendering Equation, [pbrt-v4](#), [webgl2fundamentals](#), Physics/Spectrum/Eye Vision of Color, ... , [My Fillament doc remake](#) (BRDF, Diffuse, Reflection).

- **Experienced in English-speaking work environments:** Experienced in technical discussions, writing documentation, and collaborating effectively with international teams.

Education

AS	University of Science - VNUHCM, Information Technology	2012 – 2015
BS	University of Science - VNUHCM, Computer Science	Sept. 2018 – Sept. 2020
	<ul style="list-style-type: none">• GPA: 3.3/4.0• Thesis: GCAT - Link Prediction in Knowledge Graph, Code.	
MSc	University of Science - VNUHCM, Computer Science	Oct. 2021 – Dec. 2024
	<ul style="list-style-type: none">• GPA: 3.44/4.0• Thesis: OpenHuman: A conversational gesture synthesis system based on emotions and semantics, Code, Huggingface, Unity, Demo.	

Experience

Rakumo Inc, Software Engineer	Jul. 2019 – Apr. 2020
<ul style="list-style-type: none">• Django Web: develop webapp integrate DocuSign.	
FPT Software, AWS Data Engineer	Oct. 2020 – Nov. 2021
<ul style="list-style-type: none">• CI/CD pipeline, implemented and modified real-time and batch data pipelines on AWS using Kinesis, Lambda, S3, Glue, StepFunction, SNS, etc.• Collaborated with international teams in Agile development; established sprint planning and task tracking workflows using Rally and Jira.	
VNG Corp, Software Engineer	Oct. 2021 – May 2024
ZDN Team (Zalo Content Delivery Network): caching service serve millions request	
<ul style="list-style-type: none">• Implement scheduled java ThreadPool for monitoring stats execution.• Built React admin dashboard with server visualization via p5.js , amchart.js with NextJS 14.	

- GENE Research Team ([GENEA Leaderboard](#), [HEMVIP](#)): Developed a full-stack, production-grade from scratch leaderboard system used to evaluate multiple AI gesture generation models.
Technologies: Cloudflare Workers, R2, D1, NextJS App router, TailwindCSS V4
- [DeepFACS](#): Create multiple blendshape compatible with ARKit 52 for blendshape, using Faceform Wrap for transfer topology from 3DScanStore basemesh to facial expression.
- [DeepGesture](#) ([Demo](#)): Developed a body animation generation AI system on Unity based on the [DeepPhase](#) research paper. Used Matrix4x4 and Quaternion for each keyframe animation. Retarget skeleton animation using MotionBuilder.

Projects

Three.js realistic face for OpenHuman ([Code](#))

renderengine.pages.dev

- Loaded and scaled facial OBJ parts in Blender (eyeball, head, tongue, etc.); applied edited albedo, roughness, specular, clearcoat maps; configured dat.GUI, environment toggle, and tone mapping for realistic facial rendering

HairRich - Three.js Hair for OpenHuman ([Code](#))

hairrich.github.io

- Loaded hair mesh and applied textured material in Three.js.

3D Human Model with ReadyPlayerMe ([Code](#)) Integrated and configured ReadyPlayerMe model with morph targets in Three.js.

3d-human-model

MillionScope ([Code](#)) ChatGPT-Clone with Chat SDK. Stream response result of Cloudflare Workers & Cloudflare AI.

millionscope.com

Unity Game Pucca Runner ([Code](#))

Pucca Runner

- Use a hash map of 2D coordinates and Dijkstra's algorithm to find the shortest path. In the event loop, the runner moves toward the player. Trigger collision if Pucca catches the player, violates the ocean matrix, or reaches the final goal.

Practice Three.js Reimplemented Project ([Code](#)) - Deployed with Cloudflare Pages.

humanmodel.pages.dev

Three.js Demo Project: [GlowShader](#) / [Code](#), [SpringSphere](#) / [Code](#), [Vinfast Car](#) / [Code](#), [Jumming Girl](#) / [Code](#), [Cross Sphere](#) / [Code](#).

Others:

- Portfolio hmthanh.github.io / [Code](#)
- MetaPet (metapet.vercel.app / [Code](#)): Simple NFT Marketplace with Solidity, MetaMask.
- cortexpod.com / [Code](#); pithagon.com / [Code](#): web blog with NextJS App router. Write Node.js to compile from markdown source to React components using unifiedjs, rehype, remark, mdx.js.
- Typescript [Wedding Album](#).

Certifications

- [Critical Thinking Certification 2014](#), [Emotion Recognition Certification 2019](#), [Summer ML](#)
- Coursera: [Design Pattern](#), [TensorFlow Developer Professional](#) 2021
- [AWS Solutions Architect - Associate](#), [AWS Machine Learning - Specialty](#) 2021
- [Solution Architect](#) 2021

Awards

- Award in The Good Chemistry District Student Contest 2009
- [Thach Thuc 2013](#), [Thach Thuc 2014](#) Faculty of Information Technology, HCMUS