

Hoàng Minh Thanh

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ML Engineer for 3D Digital Humans

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I'm passionate about Realistic Digital Human. With hands-on experience from multiple React and Three.js projects, I am well-suited for the ML Engineer for 3D Digital Humans role at **Meshcapade** and capable of contributing to the development of high-quality, interactive 3D web experiences.

★ Keypoint

- **Passionate about digital human:** Creator of [OpenHuman](#). Github Project: [openhuman-ai/renderengine](#), [humanmodel.pages.dev/Code](#), [GLSL Shader](#), [faceanimation.github.io](#), [hairrich.github.io/Code](#), [React ThreeFiber](#), [Skeleton Animation](#), ...
- **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).
- **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](#))
Vast experience of multiple React web project: ([MillionScope](#), [GENEALeaderboard](#), [Cortexpod](#), [MetaPet](#)), ...
Hands-on experience in optimization scalable production 3D web assets.
- **Experienced in Research 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	Jul. 2019 – Apr. 2020
	• GPA: 3.3/4.0	
	• Thesis: GCAT - Link Prediction in Knowledge Graph , Code ,	

📁 Experience

Rakumo Inc, Software Engineer

- Django Web: develop webapp integrate DocuSign.

FPT Software, AWS Data Engineer

- 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

ZDN Team (Zalo Content Delivery Network): caching service serve millions request

- Implement scheduled java ThreadPool for monitoring stats execution.
- Built React admin dashboard with server visualization via p5.js ,

amchart.js with NextJS 14.

rendering page May 2024

OpenHuman [\(openhuman.ai\)](#), Creator

- 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. Re-target skeleton animation using MotionBuilder.

</> Projects

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

- 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](#))

- 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.

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

[millionscope.com](#)

- Thach Thuc 2013 [🔗](#), Thach Thuc 2014 [🔗](#) Faculty of Information Technology, HCMUS