Mathew Tomberlin

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Portfolio: mathewtomberlin.github.io | **LinkedIn:** linkedin.com/in/mathew-tomberlin | **GitHub:** github.com/MathewTomberlin

Versatile Software Engineer with 8+ years of experience building high-impact applications across AI, VR, game development, and full-stack SaaS. Keen project management and communication skills honed in military and start-up environments. Quick to align with and prioritize key project requirements and milestones. Passion for mentoring junior developers and learning new technology.

Skills	
Enterprise App	React, Typescript, Javascript, Java, Spring, REST API, SQL
Game Programming	Unreal Engine, C++, Blueprints, Unity, C#, Animation Programming, Level Design, Performance Optimization, AI Character Design, Networking and Multiplayer
3D Art	Blender, 3D Modeling, Character Rigging and Animation, Materials and Textures
AI Applications	LLMs, Agents, LangChain, ComfyUI, SwarmUI, RAG

Professional Experience

VR Software Engineer | HaptX Inc | 2022 – 2024

I worked with hardware and firmware engineers to build VR training in Unreal Engine for in-development haptic VR glove hardware. After the gloves entered production, I built C++ software to validate glove assembly and reduce mistakes by over 50%. The Unreal Engine VR training I built won Best of Show at AWE 2024 and was praised by customers and conference attendees for its realism. During development, I focused on performance and was able to double the framerate and significantly improve user comfort and satisfaction.

Full-Stack Software Engineer | Boeing Tapestry Solutions | 2019 – 2022

I modernized the ICODES web app front-end using React and Typescript and the back-end using a Java Spring REST API. I was a founding engineer at Boeing ESI SaaS and I developed the Kafka back-end for warehouse automation. I directly contributed in the software and user interface design processes of both ICODES and ESI projects, including client design validation. I mentored developers, both peers and junior developers, and frequently advocated for coding practices and potential software updates.

VR Game Developer | CSUMB Researcher | 2017 – 2018

Built Scalebridge, an educational Unity C# game using EEG for ADHD therapy, with small team and presented at VS-Games 2019
PDF: https://mathewtomberlin.github.io/Gauntlet.pdf
Designed and developed Gauntlet, a VR input method for optical hand tracking; Published at IEEE VR 2017.
PDF: https://mathewtomberlin.github.io/Scalebridge.pdf

Signals Intelligence Operator | United States Marine Corps | 2007 – 2012

I graduated from the Defense Language Institute with a fluency in Korean, mentored junior Marines, and was a fire team leader deployed with FBI and special operations teams operating electronic signals intelligence equipment in treacherous environments.

Personal Projects

CG Engine | Open-Source C++ Scripting Engine
An OpenGL C++ scripting engine open-sourced for community use
GitHub: https://github.com/MathewTomberlin/CGEngine

React Agent AI | Open-Source React and Python Agentic Image Generation
A React front-end, Model Context Protocol (MCP) capable agent AI capable of generating image via local SwarmUI app
GitHub: https://github.com/MathewTomberlin/React_Agentic_AI

Education

Bachelor of Science in Computer Science, Game Programming Concentration
California State University, Monterey Bay | 2016 – 2018