

YU MA

SOFTWARE DEVELOPER | AI & SOFTWARE SYSTEMS

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PROFESSIONAL PROFILE

Software developer with hands-on project experience across C++/Direct3D 11 graphics, C#/Unity systems, full-stack web development, and applied AI. Leads production planning for a 10-person interdisciplinary game team and brings additional operational experience from the U.S. Army National Guard.

TECHNICAL SKILLS

Languages: C#, C++, JavaScript, TypeScript, Python, PowerShell, HLSL, Java

Web & application: React, Node.js, Express, MongoDB, Redis, HTTP/API development

Game & graphics: Unity, Direct3D 11, HLSL

AI & developer tools: Azure AI, OpenAI Codex, Claude, Ollama, structured prompting, local LLM integration

Engineering: Git/GitHub, GitHub Actions, Visual Studio, debugging, Trello, Miro

EXPERIENCE

PeaceLand: Choose Your Memory | Game Design Lead / Production

2025-Present

- Lead production planning for a 10-person interdisciplinary team, translating project goals into scoped work, weekly priorities, and milestone-level deliverables across design, narrative, art, and development.
- Coordinate cross-functional implementation through GitHub, Trello, and Miro while maintaining implementation-facing documentation and alignment between design and development workstreams.
- Design and refine story-tree, game-flow, and minigame specifications that translate narrative and product goals into implementation requirements.
- Built a supporting notebook prototype with directory, entry, reflection, localStorage persistence, and review-state flows to validate interaction concepts before production integration.

U.S. Army National Guard | Water Treatment Specialist

Aug 2023-Present

- Identified critical water-storage equipment and supply shortfalls during 2026 Annual Training, communicated the gaps, and helped cover equipment and supply needs supporting completion of a 20,000-gallon water operation; received the Army Achievement Medal for documented performance.
- Received repeated command recognition across separate training periods at both battalion and company levels, demonstrating a sustained pattern of recognized performance rather than a single isolated event.
- Supported New York State's corrections-response mission and received the New York State Duty in Aid to Corrections Service Ribbon.

EDUCATION

Rochester Institute of Technology (RIT) | Rochester, NY

2026

Bachelor of Science in Game Design and Development, magna cum laude

- Cumulative GPA: 3.69 | General Education Immersion: AI in Society
- Relevant coursework: Data Structures & Algorithms; Rich Media Web App Development; AI for Game Environments; AI-Centric Software; AI Quest & Story Generation; Foundations of Game Graphics Programming

MAJOR ENGINEERING PROJECTS

Direct3D 11 Rendering Pipeline | C++ | Direct3D 11 | HLSL

Fall 2025

- Developed and debugged a real-time Direct3D 11 rendering framework from a course starter codebase, working across shader loading, resource binding, and GPU pipeline stages.
- Implemented HLSL shader workflows, shadow-related resources, and post-processing resources while integrating graphics resources across the rendering pipeline.
- Used ImGui and compiled shader artifacts to inspect runtime behavior and debug rendering stages.

LectureMind / Scotty AI | SWE 560 | Azure AI Services

2026

- Contributed to a SWE 560 team project designing a study-material processing system around Azure Speech, Document Intelligence, summarization, API-gateway communication, and local storage.
- Contributed to architecture and workflow design connecting audio/document ingestion, AI-assisted content processing, service communication, and persistent study-material storage.

Archive Guard RPG | React | Node.js | Express | MongoDB | Redis | Ollama

2026

- Developed a full-stack text RPG using a React frontend, Express/Node.js backend, MongoDB persistence, and Redis/session-backed account and conversation-history flows.
- Designed baseline and structured prompting systems using local Ollama, explicit NPC attitude/objective state, and fallback handling for failed or empty model output.
- Evaluated 62 saved conversations - 15 baseline and 47 structured - with rubric averages improving from 2.00 to 3.25 for role adherence/consistency and 2.50 to 3.25 for helpfulness.

Wager Warren | Team Lead & Lead Programmer | Unity | C#

2025-2026

- Led planning and integration for a 3-person Unity/C# team, translating milestones into prioritized development work and coordinating Git integration around playable builds.
- Contributed reusable gameplay architecture and content-authoring workflows using state/data separation, ScriptableObjects, reusable components, and custom Inspector/EditorWindow tooling.

NeuralNet2D Gesture Classifier | Unity | C# | Feedforward Neural Network

2026

- Implemented and adapted feedforward neural-network components in Unity/C#, including neuron/layer structures, sigmoid activation, forward propagation, and backpropagation.
- Built a gesture-classification pipeline using 16 gesture patterns, 12-vector preprocessing, mouse-path processing, and an interactive classification interface.

COURSEWORK & MINI PROJECTS

Casual Civ AI | Unity | C# — Built a state-driven turn AI using world-state construction, quest selection, strategy/threat/hostility scoring, behavior-tree combat logic, and CSV decision telemetry.

A* Pathfinding / Simulation | Unity | C# — Coursework in a starter framework covering A* search, priority-queue traversal, obstacle-map navigation, queued character paths, and simulation management.

Ollama Agent Tool | Node.js | Ollama | GitLab API — Prototyped a local tool-calling workflow using Ollama and an external GitLab API, with comparison work involving qwen3 and llama3.2.

HONORS & AWARDS

- Army Achievement Medal, 2026
- Army Reserve Components Achievement Medal
- New York State Duty in Aid to Corrections Service Ribbon
- National Defense Service Medal
- Army Service Ribbon