Monique Legaspi

Portfolio: falseaxiom.github.io
LinkedIn: linkedin.com/in/mleg
Contact: monique@alumni.upenn.edu

EDUCATION

University of Pennsylvania, *Philadelphia, PA* Sep 2022 – Aug 2023
M.S.E. in Computer Graphics & Game Technology, *3.81 GPA*
Relevant Coursework: Interactive Computer Graphics, Computer Animation, Advanced Topics in Computer Graphics & Animation, Game Design Practicum, Machine Perception

Princeton University, *Princeton, NJ* Sep 2018 – May 2022
B.S.E. in Computer Science, Minor in Visual Arts, *3.59 GPA*
Relevant Coursework: Algorithms & Data Structures, Advanced Programming Techniques, Computer Graphics, Computational Geometry, Computer Networks, Web3: Blockchain/Cryptocurrencies

SKILLS

Languages: C#, C++, Python, Java, MEL, OpenGL Shader Language (GLSL), HTML/CSS, JavaScript, C90

Software: Unity, Unreal Engine (incl. Blueprints), Maya, Arnold, Blender, Houdini, Rhino, MotionBuilder, Procreate, Adobe CC (Animate, After Effects, Premiere, Illustrator, Photoshop)

Tools: Qt Creator, Visual Studio, VS Code, Jupyter Notebook, Figma, Git

EXPERIENCE

Shameless Product Placement | Lead Programmer, *Burlington, VT* Oct 2024 – Present
Leading the design and implementation of *Shameless Boulevard,* an immersive, gamified catalogue built in Unity and intended to showcase in-game product placement opportunities for potential company sponsors and investors.

University of Pennsylvania | Graduate Teaching Assistant, *Philadelphia, PA* Jan – May 2023
Graded and held office hours to assist 60-70 students with debugging C++ and OpenGL programming assignments in Qt Creator for CIS 4600: Interactive Computer Graphics.

Princeton University | Grading Manager & Undergraduate Teaching Assistant, *Princeton, NJ* Jan 2020 – May 2022
Graded, provided feedback on weekly Java programming assignments for ~300 students/semester in COS 126: Introduction to Computer Science. Improved efficiency of grading process alongside managing team.

Publicis Sapient | Software Engineer Intern – Design Lead, *New York, NY* Jun – Aug 2021
Utilized Figma and CSS/JS to design and implement WCAG 2.0 AA-compliant personal concierge bot for Mercedes-Benz USA site, earning ***Best Design Award*** among intern projects.

Princeton University Office of Information Technology | Web Development Services Intern, *Princeton, NJ* Jan – May 2021
Designed and user-tested components of new Jazz Design System in Figma and Drupal to be used across all Princeton-affiliated sites, closely following WCAG accessibility guidelines.

PROJECTS

view these and more at my portfolio website, falseaxiom.github.io

CGTA, ChatGPT-Inspired TA Chatbot | *Python, OpenAI API* 2023
Created TA assistive tool which uses generative AI to encode archives of Piazza/EdSTEM posts and produce answers to theoretical and course-related questions from students in CG@Penn classes.

Knit-It!, Maya Plug-In Authoring Tool (team of 2) | *Maya, Python, MEL* 2023
Created Maya plug-in which, given a quad-based mesh, generates a valid knitted mesh, with customizable stitch-face style and size options. Based on 2012 SIGGRAPH paper "Stitch Meshes for Modeling Knitted Clothing with Yarn-level Detail" by Yuksel et al. Programmed stitch-face resizing and orientation, alongside refining UI, debugging, and design documentation.

PaddleBall, Unity-Based VR Puzzle Game (team of 3) | *Unity (C#), Vive Pro* 2023
Developed prototype for Portal-like VR game where player utilizes a magnetic paddleball to escape an abandoned spy facility. Focused on visual development, asset modeling, refining and debugging gameplay functionality, and design documentation.

FLY, ICARUS, UE-Based Infinite Side-Scroller Game (team of 2) | *Unreal Engine (C++, Blueprints)* 2023
Developed prototype for side-scrolling survival game that utilizes mouse-scroll to propel player character (Icarus) into the air, avoiding sea monsters and the hot sun. Spearheaded vis-dev, scroll functionality, obstacle movement, and design documentation.

Mini Minecraft, OpenGL-Based Minecraft Clone (team of 3) | *C++, GLSL/OpenGL, Qt Creator* 2022
Built simple Minecraft with infinite generative terrain. Contributions include implementing efficient terrain rendering and chunking, multithreaded terrain generation, and designing four distinct biomes which blend between one another.

Mini Maya, OpenGL-Based Authoring Tool | *C++, GLSL/OpenGL, Qt Creator* 2022
Implemented Maya-like mesh editing program capable of traversing half-edge structures, triangulating faces, Catmull-Clark subdivision, face extrusion, and linear blend mesh skinning, with interface constructed in Qt.

left unsaid, Award-Winning Visual Novel | *HTML/CSS, JavaScript, Procreate* 2021 – 2022
Designed, wrote, illustrated, and coded online point-and-click game with interactive elements, side-quests, and multiple endings. Received ***Lucas Award in Visual Arts*** for excellence and quality.