Meredith Scott

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EDUCATION

Northeastern University, Boston, MA | **GPA: 3.9/4.0**   Sep. 2022 – Present
Candidate for a Bachelor of Science in Computer Science and Media Arts   Expected April 2026
Relevant Coursework: Computer Graphics, Human Computer Interaction, Software Engineering, Game Artificial Intelligence, 3D Animation

SKILLS

Languages:	Python, C++, C#, MEL, VEX, JavaScript, TypeScript, SQL, Java, HTML/CSS
Tools & Libraries:	PyQt, Qt Designer, OpenGL, Git, Visual Studio, Docker, CI/CD, MongoDB, React
3D & Design Software:	Maya, Houdini, Unreal Engine, Unity, ZBrush, XGen, Marvelous Designer, Adobe Suite, Figma
Systems:	Linux, Windows

WORK EXPERIENCE

Technical Director Intern | Paramount Animation, *Los Angeles, CA*   Jun. 2025 – Aug. 2025
- Optimized production pipelines by developing custom Python and Qt-based tools that streamline artist workflows, reduce manual intervention, and ensure reliable file management across active animated film projects.
- Engineered and designed a dual GUI/CLI file management system with cron job automation, enabling artists to quickly list, preview, and delete outdated versions of media files, reducing server overload from massive EXR file generation.
- Refactored a Maya hand rigging tool by integrating the Studio Library API, cutting code complexity by 90% through JSON-based configuration, improving maintainability and enabling rapid iteration on artist-requested features.
- Collaborated directly with technical directors, production staff, and artists in agile sprint cycles to debug, deploy, and document tools, reducing turnaround time on pipeline issues and ensuring long-term tool stability.

UX Augmented Reality Research Scholar Co-op | Northeastern University, *Boston, MA*   Jul. 2024 – Apr. 2025
- Selected for the Northeastern University PEAK Ascent research grant and RISE expo for impact and innovation.
- Developed augmented reality prototypes in Unity with the Microsoft HoloLens 2 and MRTK to test the abilities of 3D interface design, gesture recognition, and user experience at the Northeastern Reality Design Studio.
- Conducted extensive usability testing to identify prototype errors, utilizing gesture elicitation study frameworks.
- Spearheaded an Amazon Mechanical Turk crowdsourcing survey to catalog AR representation in film, automating workflows using the IMDb API, Google Apps Script, and JavaScript to streamline data collection.
- Analyzed over 100 survey results using NumPy and Pandas, generating key insights for future research directions for the lab.

Software Development Intern | Nova Biomedical, *Waltham, MA*   Jul. 2023 – Aug. 2023
- Designed and implemented C# maintenance screens and created technical illustrations for on-screen procedures, improving usability and workflow efficiency in a blood glucose analyzer release.
- Identified and resolved software bugs, authored verification scripts, and managed testing workflows in Helix ALM to ensure compliance with medical device standards.

PROJECTS

Procedural Book Generator HDA | Houdini, VEX, Python ⍿   Sep. 2025 – Dec. 2025
- Built a fully procedural book generator in Houdini using VEX and node-based workflows, featuring randomized dimensions, hues, and orientations with user-controlled parameters for aspect ratio and layout customization.
- Automated spatial alignment and material variation using Match Size and Copy to Points nodes, optimizing instancing for efficient scene integration and scalable asset generation.

Raytracer | C++, OpenGL, MVC Pattern ⍿   Apr. 2025
- Engineered a custom raytracer in C++ using vector math and OpenGL for 3D rendering with texture mapping, lights, shadows, transparency, and reflections.
- Utilized a scenegraph-based hierarchical structure with the visitor pattern for scene modeling.

Image to Palette Krita Plugin | Python, PyQt, Krita API ⍿   Jul. 2024
- Designed and created a Krita plugin to dynamically generate and manage color palettes from images, enhancing digital artists' workflows with an intuitive PyQt-based UI.
- Implemented robust functionality for saving, loading, and regenerating palettes, integrating JSON for cross-session persistence and drag-and-drop capabilities, improving usability for end users.

LEADERSHIP EXPERIENCE

Treasurer | Northeastern University Animation Club, *Boston, MA*   Apr. 2024 – Present
- Overseeing all club finances by tracking spending in Excel, presenting budget requests, submitting spending reports, and communicating with the Northeastern Finance Board.
- Calculating costs for large-scale events such as professional guest speakers, field trips, workshops, and film festivals.