Jacqueline Allex

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SKILLS

Programming : Python, PyQt, C++, OpenGL, C#, Javascript, Git, Perforce, Agile, Linux
DCC Proficiencies : Maya, Blender, ZBrush, Substance Painter, UE4, Unity

EXPERIENCE

Pixar Animation Studios — **Emeryville, CA**
Software Engineer - Applications Intern — June - August 2022

- Programmed tools using Python, Qt, and C++ for set-dressing artists in Maya and Maya-Usd.
- Contributed features to open source project maya-usd to support Maya UFE development for sets.

Disney Research Imagineering — **Glendale, CA**
Research and Development Co-op — January - June 2022

- Collaborated on Imagineering research projects related to AI characters and AR experiences. Helped program procedural animation state system including visemes for dialogue, for real-time character experience using UE4 and Blueprints. Sculpted, modeled, rigged, textured, and animated character and other assets. Wrote script, storyboarded, and created concept art.

Electronic Arts — **Pasadena, CA**
Technical Artist Intern — May - August 2021

- Served as a Technical Artist on Battlefield Mobile for Industrial Toys; programmed artist-facing tools using Python, PyQt, Blueprints for UE4 and Maya. Used Perforce for source control.

ILM, Lucasfilm — **San Francisco, CA**
Core Pipeline Software Engineer Co-op — January - May 2021

- Used Python3 to code features in Excavator, a tool for scanning a filesystem for information about what lives on disk and storing that information in elasticsearch for artists and engineers to reference.
- Wrote scripts and debugged farm jobs (Coda), worked using docker and linux.
- Transferred scanned information from redis to kafka, inserted data from kafka into elasticsearch.

Human Movement Neuroscience Lab — **Boston, MA**
VR | AR | Motion Capture Technical Engineer — January 2020 - January 2021

- Developed 3D animation capabilities for open-source project *freemocap*, a markerless mocap system.
- Constructed skeleton and created full-body human animations including hands using Python, Blender's API, and parsed data collected through marker and markerless motion capture sessions.
- Cleaned large amounts of mocap data and leveraged Blender's API to create an automated mocap data export system which exports baked animated skeleton and mesh as an FBX, GLTF, or USD file.

Bank of America — **Jersey City, NJ**
Global Technology Analyst Intern — June - August 2019

- Used ReactJS and NodeJS to design and build 10+ features on the front-end and API of data transfer app.

EDUCATION

Northeastern University, Khoury College of Computer Sciences — **December 2022**
Candidate for Bachelor of Science in Computer Science and Media Arts — GPA: 3.8 / 4.0

VOLUNTEERING

SIGGRAPH Conference 2022 Team Leader, 2021 Student Volunteer

PROJECTS

Mesh Decimation LOD Tool

- Implemented Mesh Decimation and display tool using edge collapse algorithm using C++, OpenGL, and SDL, including a greedy version for optimization in reducing dense meshes.
- Created an artist-usable LOD Maya tool using Maya's Python API 2.0 and maya.cmds. Uses the Half Edge data structure, and edge collapse as well as vertex split to reduce/add edges to the mesh.