

# Jacqueline Alex

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## SKILLS

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**Programming :** Python, C++, OpenGL, GLSL, C#, Javascript, Java, Git, Perforce, Agile

**DCC Proficiencies :** Maya, Blender, Houdini, Nuke, UE4, Unity, ZBrush, Substance Painter

## EXPERIENCE

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### Electronic Arts

Los Angeles, CA

Technical Artist Intern

May 2021 - Present

- Working on Battlefield Mobile as a Technical Artist for Industrial Toys, programming artist-facing tools in Unreal Engine 4, Maya 3D, and general tools such as a Slackbot, primarily using Python and Blueprints Visual Scripting Language. Used Perforce for source control.

### ILM, Lucasfilm

San Francisco, CA

Core Pipeline Software Engineer Intern

January - May 2021

- Used Python3 to program 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 - December 2020

- Constructed skeleton and created full-body human animations using Python, Blender's API, and parsed data collected through marker and markerless motion capture sessions.
- Automated systems to clean up large amounts of mocap data.
- Calculate vectors and matrices related to position and rotation, quaternions in 3D space, perform calibrations, project rays, manipulate cameras and rigid bodies.

### Bare Tree Media

Boston, MA

Computer Graphics Technical Director (Freelance)

March 2020 - May 2021

- Used Javascript to build components of AR filters such as custom shaders, particle effects, 3D and 2D animations, user interactivity, games, lighting, cameras.

### 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.
- Collaborated on an Agile team of experienced developers and designers to create new application approaching UAT, Distribute, which facilitates data transfer in Credit Risk.

## EDUCATION

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Northeastern University, Khoury College of Computer Sciences

Boston, MA

Candidate for Bachelor of Science in Computer Science and Media Arts

December 2022

GPA: 3.75 / 4.0 (Dean's List Placement for Academic Excellence)

Coursework: Computer Graphics, Linear Algebra, Algorithms, Object Oriented Programming, Animation, Computer Science Fundamentals I & II

## VOLUNTEERING

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ACM SIGGRAPH 2021 Student Volunteer

## PROJECTS

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### Raytracer

- Renders realistic images through ray tracing techniques on 3D scenes.
- Used C++ to implement space-time raytracing, motion blur, AABBs, BVH volumes, image textures, perlin noise, Vector3 math operations, rays, shaders, lights, geometry in a scene, normal determination, antialiasing, materials with refraction and reflection, and cameras