



GEORGE GENG

Engineer and animation student passionate about projects
at the intersection of art, computer science, and storytelling.

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EDUCATION

California Institute of the Arts Sept 2022 - present
Character Animation Major, expected graduation May 2027.

University of California, Berkeley Aug 2014 - May 2018
Bachelors of Science in Electrical Engineering & Computer Science

TECHNICAL EXPERIENCE

Research Engineer May 2018 - Feb 2020
Visby San Francisco, CA

- Performed experiments to explore models for decoding holographic light field video.
- Wrote C++ code and profiled low-level hardware activity to optimize performance, stability, and data throughput as part of a critical feature for the decoding pipeline.
- Designed and implemented a data ETL system in Python for tracking stability metrics.
- Gained exposure to CUDA programming, learning new APIs on the fly (e.g. libavcodec, OpenSSL) and translating high-level requirements into manageable subtasks.
- Learned to write well-documented code for a large repository, apply best-practice system design principles, and take on many roles in a demanding, fast-paced agile environment.

Animation Studio R&D Intern May 2017 - Aug 2017
Blue Sky Studios Greenwich, CT

- Developed and made improvements to proprietary animation pipeline tools for Blue Sky Studios, an animation studio behind films such as *Ice Age* and *The Peanuts Movie*.
- Collaborated with software engineers and artists to build the groundwork for a node-based material designer and create an intuitive UI for texture artist (Python/PyQt).

Limb Auto-rigger

Python

- Scripted a Python-based Maya plugin for automating the rigging of bipedal character limbs to streamline the rigging process.
- Implemented functionality for IK/FK joint switching as well as “stretchy” deformable bones to give animators more control over movement and squash and stretch.
- Added an intuitive UI and the ability to customize options for better integration within different animation pipelines.

Global Illumination Raytracer

C++

- Built a global illumination C++ path-tracing renderer for one of the most difficult projects in Berkeley’s graphics course.
- Implemented physically based light transport algorithms, different materials (e.g. mirror, glass, metal), lens models (e.g. fisheye, telephoto), and camera autofocus.

ART EXPERIENCE

Student Films Sept 2022 - present
California Institute of the Arts Santa Clarita, CA

- Produced 2 short animated films (*'Night Drive'* and *'Sato Sibling Farm'*) at Calarts. Created storyboards, animatics, character designs, 2D animation, and compositing for each project, gaining familiarity with each step of the filmmaking pipeline.
- Collaborated with peers on their films by providing in-between animation and coloring assistance.

Technical Skills

Graphics programming
Python scripting
Rendering pipeline
Image processing
Video processing
Pipeline automation
Parallel programming
3D modeling/rendering

Programming Languages

Python
C/C++
MEL
Java
CUDA
OpenMP
OpenGL
HTML/CSS
Javascript
Git
Matlab
SQL

Animation and Design Tools

Maya
Blender
TVPaint
Toon Boom Harmony
Adobe Photoshop
Adobe Illustrator
Adobe After Effects
Storyboard Pro