

AMANDA HAN

Software Developer

Software Developer interested in Computer Graphics, Computer Vision, and 3D Printing

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WORK EXPERIENCE

Examining Realistic Animation for Bird Flight Locomotion and Flocking Behavior Research Project

03/2020 - 06/2020

Achievements/Tasks

- Initiated and co-led a 10-week research project examining realistic 3D bird flocking behavior in Unity
- Refined Craig Reynolds' Boids algorithm by integrating active vision model and examining olfactory pheromone response behaviors to fear and hunger
- Modeled bird flapping behavior with realistic wave functions on bird with seven degrees of freedom
- Wrote academic report and presented findings in graduate level seminar

Raytracer

Personal Project

04/2020 - Present

Achievements/Tasks

- Developed program in C++ to model 3D realistic scenes with spheres and light sources
- Utilized recursive ray tracing algorithm with refraction and reflection to accurately render metal, diffuse, and dielectric materials
- Implementing camera positioning, blur, shadowing, and texture mapping

Software Development Intern

Walt Disney Imagineering

01/2020 - 04/2020

Glendale, CA

Achievements/Tasks

- Refactored backend for CGI/CAD pipeline webtool in .NET Core using C#
- Wrote and Deployed .NET Core web application to Azure App Services Linux
- Pushed data from REST APIs to Snowflake Databases using Node.js and Snowflake CLI

Full Stack Web Development Intern

Dolby Laboratories

06/2019 - 09/2019

San Francisco, CA

Achievements/Tasks

- Built back-end and front-end of external website for partner companies with account creation and authentication using Okta's REST API in .NET Core with C#
- Developed Xamarin Forms cross-platform mobile application in C# for room schedule management
- Automated meeting check-in using Python and OAuth

SKILLS

Linux Git Azure App Service

Unity C# C/C++ Javascript

Node.js Java Python SQL

HTML/CSS

EDUCATION

B.S. Computer Science and Engineering

University of California, Los Angeles

09/2018 - 06/2022

GPA: 3.6/4.0

Relevant Coursework

- Artificial Life for Computer Graphics and Vision (Graduate)
- Introduction to Computer Graphics
- Data Structures & Algorithms
- Linear Algebra
- Discrete Mathematics

ORGANIZATIONS

3D4E - 3D Printing for Everyone at UCLA (09/2018)

Vice President

Creative Labs (03/2019 - 12/2019)

Project Lead, Lead 3D Modeler

INTERESTS

3D Modeling 3D Printing

Dungeons and Dragons Latin