



Ali Astin Azarafza

Senior Graphic and game designer

DoB: 2000-05-10
Marital Status: Married
Military Service: Served

✉ astinazarafza@gmail.com

📍 United States of America (USA)



Skills

C c++ developer Maxon Cinema 4D

python micropython arduino

javascript html/css photoshop

illustrator game design

game development environment modeling

psychology



Language

English

Reading ● ● ● ● ●

Writing ● ● ● ● ●

Speaking ● ● ● ● ●

Listening ● ● ● ● ●



Profile Summary

have been working professionally for 10 years in the industry of making games, teaching and developing graphical software



Work Experience

Environment and special effects designer

Remedy Entertainment

Espoo, Finland

February 2015 - April 2016

Tasks and Achievements

- Achieved revolutionary results in in game visual effects
- Ground breaking graphics
- Bleeding edge character modeling

Lead graphic engine designer in horizon zero dawn

Guerrilla Games, Sony Interactive Entertainment

Amsterdam, Netherlands, the = Holland

July 2015 - February 2017

Tasks and Achievements

- Revolutionary graphics designing
- Redesigning the game engine
- Best dynamic lighting and foliage simulation in PS4 games

Art director for Control

Remedy Entertainment

Espoo, Finland

March 2017 - November 2019

Tasks and Achievements

- Complicated and engaging storyline
- psychological horror by Level designe
- Best Ray tracing engine in a game till today

Lead graphic designer for Horizon forbidden West

Guerrilla Games, Sony Interactive Entertainment

Amsterdam, Netherlands, the = Holland

May 2018 - February 2022

Tasks and Achievements

- High level of graphical detail and realism
- Improved lighting and face shading engines
- Superfluid animations
- fast loading and bleeding edge chunk system
- Optimized and fluid frame rates

Persian



French



German



Spanish



Certificates

GIAC Certified Unix Security Administrator

Linux+

Adobe Certified Associate

Graphic and Digital Design certificate

Graduate Certificate in Game Development

CISSP

CISM

Security+

CEH

Developer for unreal Engine 5

Epic Games

United States of America (USA)

December 2019 - April 2022

Tasks and Achievements

- Best public graphical engine available in the market
- Lumen: Global Illumination and Reflections fully dynamic global illumination and reflections system
- Nanite: Virtualized Geometry virtualized geometry system which uses a new internal mesh format and rendering technology to render pixel scale detail and high object counts

Art director for Alan Wake 2

Remedy Entertainment, Microsoft Studios

Espoo, Finland

July 2021 - Present

Education

Associate in medicine

Branch: nephrology

Institute/University: stanford university

Stanford, California, United States of America (USA)

GPA : 3.7

Associate in medicine

Branch: Infectious disease

Institute/University: stanford university

Stanford, California, United States of America (USA)

GPA : 3.8

Bachelor of arts and science

Institute/University: stanford university

Stanford, California, United States of America (USA)

GPA : 3.8

Master of arts and science

Institute/University: New York University

New York City, New York , United States of America (USA)

GPA : 3.7

Diploma in psychology

Branch: addiction

Institute/School: University of Oxford

England

GPA : 3.9

Associate in psychology

Branch: addiction

Institute/University: University of Oxford

England

GPA : 3.6

Network+



Social Network



civilize_art



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Teaching

guest professor

New York University

One year

master

Private professor in several disciplines

6 years

Associate in psychology

Branch: Social psychology

Institute/University: University of Oxford

England

GPA : 3.8



Research

Metropolis Light Transport

Publisher: Eric Veach Ali A. Azarafza

2015

Link : <https://drive.google.com/file/d/1KBudcgIFlkqkqLFKVVWvidHvxbrmxa22/view?usp=sharing>

new Monte Carlo method for solving the light transport problem, inspired by the Metropolis sampling method in computational physics.

Automatic Parameter Control for Metropolis Light Transport

Publisher: Ali Azarafza and László Szirmay-Kalos

2017

Link : <https://drive.google.com/file/d/1d3TcvLkXGKDFxOQ6eA03jhGRS3cgc5k1/view?usp=sharing>

Sophisticated global illumination algorithms usually have several control parameters that need to be set appropriately in order to obtain high performance and accuracy. Unfortunately, the optimal values of these parameters are scene dependent, thus their setting is a cumbersome process that requires significant care and is usually based on trial and error. To address this problem, this paper presents a method to automatically control the large step probability parameter of Primary Sample Space Metropolis Light Transport (PSSMLT). The method does not require extra computation time or pre-processing, and runs in parallel with the initial phase of the rendering method. During this phase, it gathers statistics from the process and computes the parameters for the remaining part of the sample generation. We show that the theoretically proposed values are close to the manually found optimum for several complex scenes.

Separable Subsurface Scattering

Publisher: Jorge Jimenez , Ali Azarafza , Adrian Jarabo , Christian Freude , Thomas Auzinger , Xian-Chun Wu , Javier von der Pahlen , Michael Wimmer and Diego Gutierrez

2016

Link : <https://drive.google.com/file/d/1m-zwPVf6yqUSZ4EAJ7y4TIKYtXDs7oH/view?usp=sharing>

In this paper we propose two real-time models for simulating subsurface scattering for a large variety of translucent materials, which need under 0.5 milliseconds per frame to execute.

Real-Time Polygonal-Light Shading with Linearly Transformed Cosines

Publisher: Eric Heitz, Ali A Azarafza, Stephen Hill, David Neubelt

2019

Link : https://drive.google.com/file/d/1-_BVebX2C-vVDVdmNxVa5rEqHYL4-gAo/view?usp=sharing

We use Linearly Transformed Cosines to shade physically based materials with polygonal lights in real-time.

Interactive Albedo Editing in Path-Traced Volumetric Materials

Publisher: ALI ASTIN AZARAFZA and RAVI RAMAMOORTHY

2017

Link: https://drive.google.com/file/d/1BRrKd8EvU24s_zXesMnQbDEYL4197fiP/view?usp=sharing

Materials such as clothing or carpets, or complex assemblies of small leaves, flower petals or mosses, do not fit well into either BRDF or BSSRDF models.

Lighting Grid Hierarchy for Self-illuminating Explosions

Publisher: ALI AZARAFZA, CEM YUKSEL

2017

Link: https://drive.google.com/file/d/12153eqMva1zOm4jaTOA61_hWjqu_Re8v/view?usp=sharing

Rendering explosions with self-illumination is a challenging problem. Explosions contain animated volumetric light sources immersed in animated smoke that cast volumetric shadows, which play an essential role and are expensive to compute. We propose an efficient solution that redefines this problem as rendering with many animated lights by converting the volumetric lighting data into a large number of point lights.

Real-Time Rendering with Lighting Grid Hierarchy

Publisher: Ali Azarafza, Cem Yuksel

2019

Link: https://drive.google.com/file/d/1iO3FIKLULDKBnpwr_7jD6WW9zkyZ-9a/view?usp=sharing

We present an extension of the lighting grid hierarchy method for real-time rendering with many lights on the GPU. We describe efficient methods for parallel construction of the lighting grid hierarchy and using it with deferred rendering.



References

Ali Azarafza

3d Graphics Researcher, Epic Games

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