# Erfan Momeni Yazdi

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#### Education =

2016 – 2021 **B.Sc. in Computer Engineering**, K. N. Toosi University of Technology, Tehran, Iran.

**♦ GPA**: 15.47/20

#### = Research Interests =

- Game Design and Development
- Computer Graphics
- Real-Time Rendering
- Virtual and Augmented Reality

## **-Honors and Awards**

Sep. 2016 Received full scholarship (tuition waiver) from K. N. Toosi University of Technology.

Jul. 2016 Ranked in the top 1% among more than 200000 participants in the annual nationwide undergraduate university entrance (konkoor) exam.

## -Selected Projects -

- Bachelor's Thesis: "Syndra Engine", 3D Real-Time Game/Rendering Engine (<u>Github</u><sup>1</sup> | <u>Youtube</u><sup>2</sup>)
  - ❖ Fast Real-Time rendering Engine using OpenGL API and C++
  - ❖ Implemented Rendering Algorithms such as Deferred Rendering
  - Advisor: Dr. Hoda Roodaki Lavasani
- "Lucin", Multi-Threaded CPU Ray Tracer (Github<sup>3</sup>)
  - ❖ Implemented a simple Path Tracer with C++
- Hotel Reservation Application "My Villa"
  - Systems Analysis and Design Group Project
  - ❖ Developed the UI and UX
- Pentago Game (<u>Github</u>)
  - ❖ Developed UI and AI (Minimax tree with Alpha-Beta pruning)
  - ❖ Used Java and JavaFX
- Implementation of Kruskal and Prim Algorithms (<u>Github</u>)
  - Graph Theory and Algorithms Final Project
  - ❖ Used Java and JavaFX

<sup>&</sup>lt;sup>1</sup> https://github.com/ErfanMo77/Syndra

<sup>&</sup>lt;sup>2</sup> https://www.youtube.com/watch?v=PlPZ7A7ZCdA

<sup>&</sup>lt;sup>3</sup> https://github.com/ErfanMo77/Lucin

## Experience

Jul. 2020 - Present

- Studying Principles of Computer Graphics and Real-Time Rendering
  - Practiced Ray Tracing concepts
  - \* Researched new algorithms in Real-Time Rendering
  - Practiced shading with Unity Engine

Jun. 2019 – Aug. 2019

- Summer Research Intern in Intelligent Processing of information and Software Testing Lab (ai.ce.kntu.ac.ir)
  - Sentiments Classification using Machine Learning (PyTorch)
  - Supervisor: Dr. Ali Ahmadi

Sep. 2018 – Jan. 2019

- Teaching Assistant, Algorithm Design, K. N. Toosi University of Technology.
  - ❖ Dr. Ali Ahmadi

#### Selected Courses

- Software Engineering (A)
- Algorithm Design (A)
- Data Structures (A)

- Advanced Programming (A)
- Engineering Probability (A+)
- Graph Theory & Algorithms (A)

#### **Online Courses:**

 Linear Algebra - Foundations to Frontiers by UTAustinX (certificate) • Computer Graphics II: Rendering By UC San Diego (in progress)

#### -Skills-

Programming Languages C++, Java, C#, Python, Matlab, x86 Assembly

Game Development Unity Engine, Unreal Engine (familiar), Blender, 3D modelling

Computer Graphics OpenGL, HLSL & GLSL, RenderDoc, ImGui, Directx11(familiar)

Web Development HTML, CSS, JavaScript, Bootstrap, MySQL

Misc Git, Latex, JavaFX, Network+, Linux, 3D Environment Art

# -Language Proficiency-

Persian: Native

• English: IELTS Overall Band Score: 7.5 (Reading: 8, Listening: 8, Speaking: 7, Writing: 6.5)

## -Hobbies

I enjoy singing, vocalizing, playing video games and listening to music.