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 (Github[1] | Youtube[2])
    - ❖ Fast Real-Time rendering Engine using OpenGL API and C++
    - ❖ Implemented Rendering Algorithms such as PBR and Deferred Rendering
    - ❖ Advisor : Dr. Hoda Roodaki Lavasani
- "**Lucin**", Multi-Threaded CPU Ray Tracer (Github[3])
    - ❖ 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 (Github)
    - ❖ Developed UI and AI (Minimax tree with Alpha-Beta pruning)
    - ❖ Used Java and JavaFX
- Implementation of Kruskal and Prim Algorithms (Github)
    - ❖ Graph Theory and Algorithms Final Project
    - ❖ Used Java and JavaFX

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[1] https://github.com/ErfanMo77/Syndra
[2] https://www.youtube.com/watch?v=PlPZ7A7ZCdA
[3] 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.