

# Erfan Momeni Yazdi

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## Education

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

❖ **GPA** : 15.47/20

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## Research Interests

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

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## Honors and Awards

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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.

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## Selected Projects

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- Bachelor's Thesis: “**Syndra Engine**”, 3D Real-Time Game/Rendering Engine ([Github](#)<sup>1</sup> | [Youtube](#)<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 ([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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<sup>1</sup> <https://github.com/ErfanMo77/Syndra>

<sup>2</sup> <https://www.youtube.com/watch?v=PIPZ7A7ZCdA>

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

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## Experience

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- 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](http://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

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## Selected Courses

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- 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)

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## Skills

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|-----------------------|---|
| 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       |

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## Language Proficiency

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

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## Hobbies

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