Karim Abdel Hamid

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# Education

**The American University in Cairo *(Feb 2015 – Dec 2020)***

* Ongoing Computer Engineering Student (BSc.)

**International School of Choueifat - Cairo *(Sep 2010 – Jun 2014)***

# Personal Project Experience

**The Grindstone Engine *(May 2014 – Present)***

(Personal project) Sole programmer and designer of my custom game engine, in development.

* Cross-Platform (Linux + Mac + PC)
* Cross-API (OpenGL, DirectX, Vulkan)
* Modern graphics techniques including PBR and beautiful 3D shaders
* Designed to be beautiful, extensible, easy to use, performant, and flexible.

**Oak.js *(Nov 2016 - Present)***

A RISCV32i IDE, simulator, and assembler. <https://skyus.github.io/Oak.js/>

* Designed and programmed both the front and backend with a colleague

# Work Experience

**Front-End and EDA Programmer *(Feb 2017 – May 2017)***

* Co-developed system-on-a-chip hardware-software co-simulation for Cloud V.
* Redesigned the front-end, which unfortunately was never properly implemented.

**Tutor *(Fall 2015, Spring 2016)***

* Tutored Intro to CS, Intro to Programming, Analysis & Design of Algorithms, Digital Design, Physics, and Calculus

**Teaching Assistant *(Fall 2015, Spring 2016)***

Was an undergraduate teacher's assistant for Dr. Howaida's CSCE1001 course at the American University in Cairo.

* Co-designed materials and curricula
* Taught dozens of students
* Debugged and aided students in the development of their projects

# Activities

**General Secretary for Computer Science and Engineering Association at AUC *(Fall 2017 - Spring 2018)***

* Led various department heads
* Coordinated several events

**Marketing and Websites Heads for Computer Science and Engineering Association at AUC *(Spring - Fall 2016)***

* Expanded on the CSEA website, improving existing features and adding new ones.
* Led and recruited a team to create graphics and advertising for the association.

**Game Development Workshop Instructor at AUC *(Spring 2016, Fall 2016)***

* Designed the curriculum and presentations including Graphics, Programming, Level Design, Modeling, Texturing, and Game Design.

**Game Development Volunteer at University of California - Irvine *(Summer 2015)***

* Game Designer, Level Designer, Modeler, and Programmer scripting on Unity project – recruited by Professor.