Karim Abdel Hamid

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# Education

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

* Ongoing Computer Engineering Student (BSc.)
* Note: The only class remaining is an Arabic class that I need to take now for bureaucratic reasons.

**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 + PC)
  + Cross-API (OpenGL, Vulkan)
  + Modern graphics techniques including PBR, image-based lighting, and post-processing
  + Designed to be beautiful, extensible, easy to use, performant, and flexible.
  + Client and Employee-friendly GUI-based editor tools

**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

**Senior Front-End Developer *(Jun 2018 – Oct 2018)***

* Developed User Interface Designs for Web and Apps.
* Managed the front end development team.
* Integrated with Amazon AWS Severless REST-based Architecture.
* Programmed and designed React-based web Interface for client and dashboard.

**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

**Game Development Workshop Instructor at AUC *(Spring 2016, Fall 2016, Jan 2020)***

* Game development course requested many times by Computer Science Association, and currently personally requested by the chair of the department, Dr. Sherif Aly.
* Designed the curriculum and presentations, and taught class of 10-40 students.
* Game Development includes Graphics, Programming, Level Design, Modeling, Texturing, and Game Design. Unreal + Unity.
* Web Development includes HTML, CSS, JS.

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

* Led all department heads.
* Coordinated entertaining and educational events, including Amazon-sponsored hackathon.

**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 2014)***

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