

# Yousif A. Aldolaijan

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## Education

### Bachelor of Science in Computer Science

Anticipated: December 13, 2018

University of Southern California, Los Angeles, CA (USC)

- Related Coursework: Operating Systems Development, Software Design, Artificial Intelligence, Algorithms and Theory of Computing, Data Structure and Object Oriented Design, and Video Game Programming.

## Internships and Research

### Google Software Engineering, Tools and Infrastructure Internship

May 2018 - August 2018

- Generating and enforcing access control lists that restrict remote procedure calls within an integration testing framework. This feature allows developers to easily verify if their services are hermetic.
- Programmed using Python, internal frameworks, and internal configuration languages.
- Developed under the guidance of Robert Dryke.

### Distributed Systems Experimentation Framework (DSEF) - Networked Systems Lab at USC Summer 2016, 2017

- Developed DSEF which easily runs experiments on different types of distributed systems while measuring the throughput, latency, and the performance of the machines running the distributed system.
- Programmed using Python and Jupyter Notebook (IPython Notebook).
- Collaborated with Sam Thomas and Roberto Gonzalez and under the mentorship of Dr. Wyatt Lloyd.

## Projects

### Controls Lead - USC Hyperloop Design Team

Aug 2016 - May 2018

- Lead the controls team to develop the autonomous control system of the USC hyperloop pod.
- Built using Texas Instruments Hercules MCU and programmed in C.
- Communication between subsystems was done using CAN, TCP/IP, UDP, GPIO, and ADC.
- Built a Ground Control System to provide remote telemetry and emergency manual control of the pod.

### Know It All - University Related Rating and Reviewing System

Aug 2017 - December 2017

- Developed a website, with 4 other students, that allows users to rate and review places, classes, and professors at our university. Made using Python, Django Web Framework, PostgreSQL, Elasticsearch, and Scrapy.

### MyPage - Static Personal Websites as a Service

Jan 2017 - May 2017

- Developed a web based service, with 3 other students, that hosts static websites and provides an interactive GUI to easily edit these websites. Made using Java, Tomcat, MongoDB, HTML, CSS, and Javascript.

### Endless Race - Racing Game

Jan 2017 - May 2017

- Developed a racer game using Unreal Engine 4 where players navigate through a tube while avoiding obstacles and competing against multiple AI racers.

## Participation

### MEGA 24-Hour Game Jam

Sep 2015

- Developed a Unity game about a water droplet escaping from a cave by transforming between the three physical phases: solid, liquid, and gas. Phases are simulated using fluid mechanics.

### Association for Computer Machinery (ACM), USC Chapter

Sep 2015 - Present

- Organized and participated in multiple networking and workshop events.

### Makers of Entertaining Games Association (MEGA), USC

Sep 2015 - Present

- Participated in multiple game development and workshop events.

## Skills

- **Programming:** Python, C, C++, Bash, Javascript, HTML, CSS, LabVIEW.
- **Technologies:** Git, Linux, Python Django, PostgreSQL, Unity, Unreal Engine, LaTeX.

## Achievements and Awards

- USC Viterbi School of Engineering Dean's List Spring 2016, 2017, Fall 2017
- KAUST Gifted Student Program (KGSP) Scholarship - Recipient May 2014 - Present