# Adam Sadek

Third Year Computer Science Major at Illinois Institute of Technology

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## **Expertise**

Java Python SQL Video Editing MAC Systems Google Apps

# Programming Experience

Java
Python
Assembly Code
Haskell
SQL
C
HTML & CSS

#### **Interests**

#### Database Design

I enjoy designing entity relationship diagrams, relationship schemas, and data definition languages for databases. Learning relational algebra and POSTGRESQL has advanced my knowledge in database management systems.

#### **Basketball**

Basketball has been my favorite sport since I was 5 years old. I played all through high school and was an NCAA Division III men's basketball player at Illinois Institute of Technology.

# Artificial Intelligence Experience (May 2022 - August 2022)

#### **COM-IoT Technologies**

- Internship with COM-IoT, a Dubai-based artificial intelligence company.
- Learned about how data collected by sensors mounted to a vehicle can be utilized by machine learning algorithms to help traffic control protect lives through better traffic violation detection.
- Aided in development of intelligence's knowledge base by annotating over 1,200 point cloud data frames made by a LiDAR. I annotated traffic objects such as cars, trucks, buses, pedestrians, motorcycles, and more.
- Performed LiDAR research assignments regarding U.S. autonomous vehicle companies utilizing LiDAR technology.
- Discovering how software engineers build machine learning algorithms to identify objects and the speed of moving vehicles reinforced in my mind the potential for artificial intelligence and machine learning to make the world a safer place.

#### Circuit Board Design Experience (August 2022 - December 2022)

#### **Xprize Rainforest Competition**

- Was part of an interprofessional competition called the Xprize Rainforest.
- Teams are tasked with developing a solution to collect as much data as possible in 24 hours about the wildlife in the Singapore rainforest. Our team's solution included drones that would drop sensor packages.
- The drone had to be equipped with motors to control the latches that would drop the sensor packages, a microprocessor to program the drone components, a motor driver to control the motors, and voltage converters to provide the motors with sufficient voltage.
- My partner and I combined all of these components into one printed circuit board. This process
  included designing the schematic and printed circuit board, programming the microprocessor, and
  manufacturing the board.

## **Academic Awards**

High school - Dubai American Academy

#### Certificate of Achievement High Honors with Distinction (GPA of 4.0 or above)

I achieved this award every semester of 11th and 12th grade and once in the first semester of 10th grade. This certificate is a testament to my strong work ethic that I have developed at a young age. To achieve this award I had to excel in my six international baccalaureate courses and regularly perform well on assessments.

College - Illinois Institute of Technology

#### Dean's List

For all five semesters that I have completed at Illinois Institute of Technology, I have been on the Dean's list. I currently maintain an overall GPA of 3.91 and I expect to improve my GPA in the future. Academic discipline and a strong work ethic have always been strengths of mine

# **Projects**

SQL Banking System Database Using JDBC LiDAR Point Cloud Data Frames

Assembly Language Calculator

C & Linux Benchmarking and Memory Hierarchy

Java Music Playlist Program