

Adam Sadek

Master's in Artificial Intelligence
Bachelor's in Computer Science
Graduating Fall 2024 From Illinois Institute of Technology

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Expertise

Artificial Intelligence (AI)
Machine Learning
Database Organization
Data Science
Natural Language Processing

Programming Experience

Python
SQL
Java
Assembly Code
Haskell
C
r
Racket
HTML & CSS

Interests

Artificial Intelligence
Developing models and studying complex datasets to identify patterns that can offer groundbreaking solutions to complex problems.

Database Design

Designing entity relationship diagrams, relationship schemas, and data definition languages for databases.

Basketball

Played all through high school and was an NCAA Division III player at Illinois Institute of Technology.

Experience

LanzaJet - Artificial Intelligence Internship (June 2024 - August 2024)

- Developed a machine learning model to maximize yield out of LanzaJet's renewable fuel plant by optimizing sensor tag values.
- Built artificial neural networks and random forest regressors for yield prediction, using gradient ascent and genetic algorithms for yield maximization.
- Constructed generative AI workshops and developed use cases for different departments including engineering, finance, and technology development.

Pentair - Computer Science Internship (May 2023 - August 2023)

- Spearheaded design and optimization of an automated system for internal life cycle testing of Pentair water softeners.
- Conducted interviews with software, electrical, and IoT engineers, as well as product development team to collect data on life cycle testing.
- Diagrammed the system of inputs, outputs, sensors, internal/external devices, and functionality of the self-testing softener.

COM-IoT Technologies - Data Science Internship (May 2022 - August 2022)

- Using supervise.ly, annotated over 1,200 point cloud data frames made by a LiDAR focused on traffic objects such as cars, trucks, buses, pedestrians, and motorcycles.
- Performed LiDAR research assignments regarding U.S. autonomous vehicle companies utilizing LiDAR technology.

AdSmart - Startup Business (August 2023 - December 2023)

- Connected local businesses to university campuses to advertise to the student population.
- Interviewed and partnered with over 20 local businesses including cafes, restaurants, and barbers.
- Developed deal with University athletic department for local advertising in gymnasium.

Academic Achievements

Xprize Rainforest Competition - Circuit Board Design (August 2022 - December 2022)

- Using KiCad software, designed and built a printed circuit board (PCB) for a drone package equipped with motors, a microprocessor, a motor driver, and voltage converters.
- Designed the schematic and PCB, programmed the microprocessor, and manufactured the board.

Illinois Institute of Technology - Dean's List

- Achieved during all eight semesters completed at Illinois Institute of Technology.
- Graduate GPA of 4.0 and undergraduate GPA of 3.94.

Projects

SQL Banking System
Database Using JDBC

LiDAR Point Cloud Data
Frames

Genetic Algorithm on
Traveling Salesman

Machine Learning on
Hotel Booking

Naive Bayes classifier for
App Reviews