

# Mahmoud Abdo

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## Software Skills

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**Programming Languages:** Python, C/C++, SQL

**Operating systems:** Windows, Linux

**Tools:** Amazon Web Services, Raspberry Pi, Arduino, Vim, Flask, Jupyter

**Programming:** Data Structures and Algorithms, Object Oriented Programming, Machine Learning, Data Science

## Work Experience

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**Data Science Intern, Transamerica Corporation. Harrison, NY.**

*June 2019 – August 2019*

- Implemented a k-means clustering algorithm on NFL player statistics, creating a player recommendation system based on past performance data.
- Trained a sentiment analysis model to monitor customer feedback from tweets to the company twitter handle using the inidico.io API.
- Successfully performed entity resolution on company patient/financial information using Python's Record Linkage Toolkit and Dedupe API.

**Teaching Assistant, Data Structures & Algorithms, NYU Tandon. Brooklyn, NY.** *September 2017 -present*

- Responsible for writing and teaching student labs, guiding students through problems, grading student's work, providing mentorship to students outside of the classroom, and holding review sessions.
- Participating in weekly meetings with professors to discuss curriculum and planning teaching material for lab.
- Developed Gradescope auto grader Docker files to automatically check and provide feedback for student submissions.

**Summer Assistant, Third North Residence Hall, New York University.**

*May 2018 - August 2018*

- Supported the transition and organization of 600 incoming residents at Third North Residence hall.
- Integrated Google Drive to improve organization, efficiency, and accountability in internal storage by creating a robust log of supplies' use and return.

## Projects ([github.com/abdoprojects](https://github.com/abdoprojects))

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**We Are the New Farmers, Food Computer Developer, NYU Tandon**

*August 2017 – January 2019*

- Configuring Raspberry Pi and Arduino automated systems to collect data from sensors that measure temperature, pH, CO<sub>2</sub>, etc. from plant and fish enclosures in an indoor, aquaponic farm.
- Data was displayed on a Raspberry Pi hosted LAMP server using HTML as the front end.

### ANONYM

- Senior Design Project which uses Natural Language Processing to create a chatbot that is capable of anonymously creating police reports for citizen reporters at their convenience.
- ANONYM was conveniently hosted on AWS, and reports were stored in an S3 database, allowing read only access of police reports to departments involved.

## Education

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**New York University Tandon School of Engineering, May 2021**

- B.S. Computer Science and Engineering
- Minor: Mathematics
- Data Structures and Algorithms Teaching Assistant

## Hobbies and athletic activities

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- PADI Certified open water SCUBA diver since 2014 with over 10 logged deep-sea dives.
- Maintaining a personal workstation/NAS server running UnRAID OS