

# IAN MURRAY

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## SKILLS

### Python

Flask

Tensorflow

Keras

SQLite3

### JavaScript

jQuery

AJAX

### SQL

SQLAlchemy

### Java

### HTML/CSS

with Bootstrap and

Jinja templates

### Go

### C

### Git/GitHub

### Unix

### Heroku

### Processing



LinkedIn



GitHub

## EDUCATION

### Princeton University; Princeton, NJ — May 2023

*Candidate for Bachelor of Science in Engineering in Computer Science and Environmental Studies Certificate*

- Relevant coursework: Data Structures & Algorithms, Mathematics for Machine Learning, Linear Algebra, Multivariable Calculus, Introduction to Machine Learning, Programming Systems, Advanced Programming Techniques, Computer Networks

## PROJECTS

### TigerFit (Fitness Web Application)

- Lead team to develop a 3-tiered application written with PostgreSQL DBMS, Python Flask processing, HTML/CSS with Bootstrap, Jinja templating, and jQuery JS to provide workout tracking and education for Princeton students. Hosted on Heroku and used Git VCS.

### HTTP Proxy

- Developed HTTP proxy between clients and server to handle and filter requests while providing client privacy. Supported concurrent client requests and improved performance through DNS domain name pre-fetching and caching. Written in Go.

### Registrar Application (Web + Desktop)

- Developed web and desktop application to query SQL database to search for classes within Princeton's list of courses. Desktop version developed with Python's PyQt5 library, website created using jQuery, AJAX, HTML, and Bootstrap.

## EXPERIENCE

### Data Analytics Intern; AeroFarms Indoor Vertical Farm — June - August 2021

*Sustainable indoor agriculture company leveraging a proprietary aeroponic growing system to farm microgreens. First vertical indoor farming Certified B Corporation*

- Developed a machine learning model in Python to forecast sales demand from Whole Foods and identify variables most likely to impact future demand to prevent overseeding. Improved previous model accuracy by 10%, saving 500 lbs of product a week
- Built website with Python Flask to enable non-technical team to use the model after the internship's conclusion

### Data Science Intern; Ariel LLC — June - August 2020

*Startup building a sustainable e-commerce site*

- Developed custom software to scrape the internet and parse incoming data to augment product database with over 600,000 entries
- Designed web crawler to retrieve thousands of company links with nested searches using requests Python library

### Machine Learning Intern; Tru-Optik — June - August 2018

*Artificial Intelligence powered digital advertising company*

- Built NLP neural network with keras and word2vec Python libraries to automate the preprocessing and categorization of thousands of client advertising targets to proprietary categories
- Created visualization of client data to show growth of targeted ads in over 80 million homes

### Data Analyst Intern; Scorpio Tankers — June - August 2020

*Tanker Shipping Company*

- Developed bespoke web crawler to automatically scrape oil production data from 117 countries to enable Scorpio to better predict global supply
- Built financial models to forecast competitors' (Ardmore and Maersk) future shipping capacity and expected earnings for 5-10 year time spans

## ACTIVITIES + LEADERSHIP

### Varsity Lacrosse

- Balance 20+ hours per week of practice, travel, and competition with rigorous engineering course load. Set and achieve both individual and team goals at an extremely high level. Perform effectively in high-pressure situations.

## COMMUNITY SERVICE

- *Brunswick Connections* - Mentor & Writing Center Tutor, *Guiding Eyes for the Blind* - Guide Dog Home Socialization Program, *Greenwich Youth Lacrosse & Waterside School* - Coach