

# OMAR NAEEM

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## EDUCATION

### UIUC

#### BS IN COMPUTER SCIENCE

May 2022 | Urbana, IL  
Grainger College of Engineering  
Edmund J. James Scholar  
GPA: 3.94 / 4.0

## LINKS

Portfolio:// [omarn33.github.io](https://omarn33.github.io)  
GitHub:// [omarn33](https://github.com/omarn33)  
LinkedIn:// [omarnaem33](https://www.linkedin.com/in/omarnaem33)

## SKILLS

### PROGRAMMING

Experienced:

Python • Java • C++

Proficient:

HTML • CSS • JavaScript  
MySQL • MongoDB • Neo4j

### FRAMEWORKS

Version Control:

Git • GitHub

Cloud Services:

AWS • GCP

Testing:

JUnit5 • Catch2

Methodologies:

OOP • Test-Driven Development  
SDLC • Agile • Waterfall

## COURSEWORK

### COMPLETED

Database Systems  
Artificial Intelligence  
Software Design Studio  
Data Visualization  
Computer Architecture  
Numerical Methods  
Data Structures  
Linear Algebra  
Probability and Statistics

### UPCOMING

Algorithms/Models of Computation  
Applied Machine Learning  
Software Engineering  
UI Design

## EXPERIENCE

### MATHNASIUM LEARNING CENTER | MATH INSTRUCTOR

Aug 2018 – Present | Glen Ellyn, IL

- Instruct three or more students at a time, grades K-12, struggling with Math
- Structure learning using the Socratic Teaching Method
- Developed a program using Google Apps Script to enhance instructor productivity during COVID-19

### U.S SOCCER FEDERATION | CENTER/ASSISTANT REFEREE

Aug 2013 – Present | Lombard, IL

- Referee Illinois youth soccer league matches typically held on weekends
- Document and submit game scores to regulate team rankings
- Adhere to the FIFA Laws of the Game to ensure safety
- Clarified laws of the game to coaches, players, and parents during call disputes

## PROJECTS

### MOST VALUABLE PROFESSOR | PYTHON, MYSQL, GCP

May 2021

- Developed a full stack web-application that uses real data for grade distribution of courses and professors at UIUC
- Hosted a MySQL database on Google Cloud Platform and deployed the application using Flask
- Utilized MySQL to respond to query inputs from the user and display requested professor data using Chart.js
- Added a login registration system to provide security and reliability for users as well as legitimacy for rating results

### HANDWRITING RECOGNITION SKETCHPAD | C++

October 2020

- Created a sketchpad that classifies hand drawn integers between zero and nine
- Parsed a text file of images and labels to train the recognition model
- Implemented the Naïve Bayes Theorem to classify image drawn by user
- Added command line interface commands to enhance program flexibility
- Utilized the Cinder application framework to display sketchpad

### MINECRAFT API ADVENTURE GAME | JAVA

September 2020

- Modeled a Minecraft adventure game which provided player movement through button inputs
- Used HTTP REST API to communicate user commands and update respective game state.
- Adhered to concepts of test-driven programming through the use of JUnit5 to ensure application functionality
- Created a JSON representation of the game layout in order to promote game design flexibility

### CHESS AI | PYTHON

April 2021

- Modeled IBM's Deep Blue computer that defeats opponents in Chess
- Utilized the Minimax algorithm as well as Alpha-beta pruning to efficiently determine the next best move.