

Neil Johari

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Education

University of Michigan 2018 - 2021

B.S.E in Computer Science

GPA: 3.7 / 4.0

Current Coursework: Data Structures & Algorithms, Intro to Computer Organization, Intro to Electronic Circuits
Completed Coursework: Programming & Data Structures, Discrete Math, CS Pragmatics, Differential Equations, Intro to Stats

Syosset High School 2014 - 2018

Highest Honors, Mastery in Science

GPA: 8.636 / 8.0

Languages

C++, Java, Ruby, Python, MATLAB

Proficient Tools

Git, Vim, tmux, Linux, LaTeX

Awards

Dean's Honor List 2019

For maintaining above a 3.5 GPA with a minimum of 12 graded credits per semester

Nassau County

Legislature Citation 2019

For leadership and community engagement

Bernie Goudreau

Memorial Award 2018

For achievement in math and CS

1st Place at Andromeda

2nd Place at WAC 2017

For the creation of a machine learning model to analyze MRI scans of Alzheimer's disease patients using convolutional neural networks

Gold Medal at

Al Khalfus Math Fair 2015

For the creation of a model of video game hours played due to social influence with an analysis through machine learning

Experience

University of Michigan

2019 - now

Instructional Aide for ENGR 100

- Led two lab sections with 25 students each (teaching & grading)
- Produced tutorial videos and lab manuals on Serial Peripheral Communication, GPS, pointers, and other advanced topics
- Revamped lab activities by identifying student difficulties in lecture and lab to improve clarity and maximize learning
- Held office hours to help struggling students and provide challenges for advanced students

Research Assistant

- Pioneered a library for RFID communication via MFRC522 sensor

MBuRST

2019 - now

Project Team Lead

- Designed and implemented a weather balloon payload to compare 4 GPS modules for sensor quality, usability, and data integrity
- Created a post-launch analysis plan to determine the most reliable and cost-effective GPS module for use in future ENGR100 and MBuRST balloon launches

Triangle Engineering Fraternity

2019 - now

Website Developer

- Led design and implementation of new website using Ruby on Rails (RoR) and PostgreSQL, deployed via Heroku
- Architected layout to direct traffic towards recruitment pages

Syosset High School

2014 - 2018

Website Developer

- Designed a new website using RoR, MongoDB and Redis
- Responsible for 280+ commits with 24,000+ changes
- Designed a sleek and ADA-compliant accessible interface

Open Source Personal Projects

Spacecat

2019 - now

- Designed software to read and serialize weather balloon measurements using Google's Protobuf, utilized by MBuRST

Scram

2016 - now

- Programmed a transparent Ruby permissions system gem

Mongoid Forums

2014 - 2015

- Developed a RoR gem for forums with MongoDB integration

AutoBroadcaster+

2012 - 2014

- Published a Minecraft server-wide scheduled broadcasting plugin
- Downloaded 228k+ times