

# Neil Johari

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## education

**University of Michigan** 2018 - 2021  
*B.S.E in Computer Science [Sophomore]*  
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

## 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

**1<sup>st</sup> Place at Andromeda**  
**2<sup>nd</sup> 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  
*Researcher*

- Produced high quality videos and lab manuals for ENGR 100-950 (Electronics for Atmospheric and Space Measurements)
- Instructional Aide for ENGR 100-950*
- Pioneered labs on Serial Peripheral Interface and RFID
- Revamp lab activities by identifying student struggles in lecture and lab to improve clarity and maximize learning

**Triangle Engineering Fraternity** 2019 - now  
*Website Master Chairholder*

- Elected to design the fraternity's 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*

- Selected by Dr. Durante to lead design and implementation of the new Syosset website utilizing RoR, MongoDB, and Redis
  - Responsible for 280+ commits with 24,000+ changes
  - Designed a sleek and ADA-compliant accessible interface
- Researcher*
- Developed a machine learning (ML) model to analyze MRI scans of Alzheimer's disease patients
  - Used ML to model social influence in time spent on videogames

**MBuRST** 2019 - now  
*Project Lead*

- Designed a weather balloon payload to conduct experiments and determine the most cost-effective GPS module at the request of Professor Aaron Ridley

## open source personal projects

**Spacecat** 2019 - now

- Designed software to read and serialize sensor data using Google's Protobuf for a high-altitude weather balloon

**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 227k+ times