

# NEIL JOHARI — SOFTWARE ENGINEER

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## EDUCATION

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### University of Michigan [Ann Arbor, MI]

Sept 2018 – May 2021

*Bachelor of Science in Engineering in Computer Science, summa cum laude*

- Coursework: System Design of a Search Engine, Advanced Operating Systems, Computer Security, Software Engineering, Web Systems, CS Pragmatics, Data Structures & Algorithms, Intro to Computer Organization

## EXPERIENCE

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### Roblox [San Mateo, CA]

Nov 2020 – present

*Incoming Software Engineer*

### [eecs.courses \[WIP\]](#)

*Founder of an Online Learning Platform*

May 2020 – present

- Implemented backend and frontend (Ruby on Rails, PostgreSQL, GraphQL, React, Apollo, CSS Modules, Heroku)
- Deployed an adaptive bitrate video streaming solution (AWS Elemental Media Services, HTTP Live Streaming)

### University of Michigan [Ann Arbor, MI]

*Instructional Aide & Student Well-being Czar (EECS280: Programming & Intro Data Structures)*

Sept 2020 – May 2021

- Organized sensitive roster and grade data to send weekly personalized emails to ~1.2k students (Python)
- Created security, efficiency, and functionality patches to the Autograder — used by ~4.6k students/semester (VueJS)
- Published Claw, a CLI tool to assist staff in debugging student code during Office Hours quickly and accurately (Ruby)
- Directed an asynchronous lab section for 33 students

*Instructional Aide (ENGR100-960/970: Intro to Engineering)*

May 2020 – Sept 2020

- Architected and implemented a [marketing website](#) (Adobe XD, SASS, Gulp, GitHub Pages)

*Instructional Aide (ENGR100-950: Intro to Engineering)*

Jan 2020 – May 2020

- Directed 2 lab sections with 25 students each
- Produced 7 videos and 5 labs to teach advanced topics in CE and CS (Premiere Pro, LaTeX)

*Research Assistant*

May 2019 – Jan 2020

- Pioneered an [RFID communication library](#) via MFRC522 sensor (C++)

### MBuRST [Ann Arbor, MI]

Jan 2019 – May 2020

*Project Team Leader*

- Conceptualized a weather balloon payload to compare 4 GPS modules for quality and data integrity (Altium, C++)

### Triangle Engineering Fraternity [Ann Arbor, MI]

Sept 2019 – May 2021

*Website Developer*

- Led design and implementation of [new website](#) (Ruby on Rails, PostgreSQL, Heroku)

### Syosset High School [Syosset, NY]

Sept 2014 – June 2018

*Website Developer*

- Spearheaded an [ADA-compliant website](#) by surveying faculty & students for website needs (RoR, MongoDB, Redis)
- Created [280+ commits with 24,000+ changes](#)

## PROJECTS

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- [BRADMEN Search Engine](#): Architected and programmed a distributed web search engine crawler, indexer, query compiler, constraint solver, ranker, and frontend — ~125M pages crawled, ~25M indexed (C++)
- Spacecat: Designed software to read & serialize weather balloon measurements, utilized by MBuRST (Protobuf, C)
- [Scram](#): Conceived an attribute-based access control system (Ruby, MongoDB)
- [AutoBroadcaster+](#): Authored a Minecraft scheduled broadcasting plugin — 228k+ downloads (Java, Kotlin)

## ADDITIONAL

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- Languages: C++, C, Ruby, Java, Python, MATLAB, GraphQL, ES6 JavaScript, HTML, SCSS, CSS
- Frameworks/Libraries/API: Rails, RSpec Unit Testing, Solidus eCommerce, React, Apollo, Sinatra
- Tools: Git, Vim, tmux, Heroku, LaTeX, Gulp, Adobe XD, Adobe Premiere Pro, Adobe Audition

## AWARDS

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- Dean's Honor List for maintaining above a 3.5 GPA with a minimum of 12 credits per semester (Jan 2019)
- 1st Place at Andromeda for using convolutional neural networks to analyze Alzheimer patients' MRI scans (May 2017)
- Gold Medal at Al Khalfus Math Fair for analyzing video game hours played due to social influence (May 2015)