

# Malek Azadegan

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## EDUCATION

### CONCORDIA UNIVERSITY

BCompSc COMPUTER SCIENCE

MINOR: LINGUISTICS

Expected May 2024 | Montréal, QC

Cum. GPA: 4.01

Good standing | Dean's List

### UNIVERSIDAD CENTROAMERICANA

BSc.SYSTEMS ENGINEERING

Oct 2016-Apr 2018 | Managua,

Nicaragua

## RELEVANT COURSEWORK

OBJECT ORIENTED PROGRAMMING

SYSTEM HARDWARE

DATA STRUCTURES & ALGORITHMS

## SKILLS

### PROGRAMMING LANGUAGES

Python • Java

HTML/Javascript/CSS

### FRONTEND

Frameworks:

Vue/React • TailwindCSS/Bootstrap

### BACKEND

Frameworks:

Flask • Express

Hosting/Database:

Heroku • MongoDB

### OTHER

Tools:

Git/Github • Jira

## SPOKEN LANGUAGES

ENGLISH

SPANISH

FRENCH

## PROJECTS

### PYMATRIX | LINEAR ALGEBRA OPERATIONS TOOL

June 2021 – July 2021 | Montréal, QC

- Developed python module for handling elementary matrix operations, as well as determinant/inverse and minor/cofactor computation.
- Designed and coded the webapp's frontend using Vue and TailwindCSS, published it to Github pages.
- Implemented the webapp's backend using Flask and hosted it using Heroku.
- Future goals: Extend the module's functionality using SymPy for operations where variables are required, such as in eigenvalue/eigenvector calculation.

The main goal for this project was to familiarize myself with linear algebra operations and how computers do this type of math. All of the functionality in the module I made can be found in other packages such as NumPy.

### VISUAL FACTOR SEGREGATOR | LINGUISTICS CONCEPT TOOL

October 2021 | Montréal, QC

- Developed online tool for showcasing an example of visual factor segregation.
- Designed and coded the webapp's frontend using plain ol' HTML, CSS, and Javascript.
- Published it to Github pages.
- Future goals: Either handle the myriad bugs, or completely refactor the site using Vue or some other framework.

### LISTRACK | USER REGISTRATION/VALIDATION SYSTEM

June 2020 – July 2020 | Montréal, QC

- The idea behind this project was to use learn how to use MongoDB, so I made a user registration, email validation, and password recovery system by hand.
- Designed and coded the webapp's frontend using Vue and TailwindCSS, published it to Github pages.
- Implemented the webapp's backend using Flask and hosted it using Heroku.
- Used Flask, Google's SMTP servers, MongoDB, and bcrypt to hand-make a user registration, email validation and password recovery system.

This was purely an exercise for learning some new tools and concepts. All of the functionality I made can be found ready-to-assemble in frameworks like Express or Django.