

Nasrudeen Oladimeji

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🔗 /Nasr-905

EDUCATION

UNIVERSITY OF TORONTO

ELECTRICAL & COMPUTER
ENGINEERING MAJOR | AI &
ROBOTICS MINOR
Expected Apr 2026
Toronto, Ontario, Canada

DIVISION OF ENGINEERING SCIENCE
Faculty of Applied Science and
Engineering

HONOURS/AWARDS

2024 NSERC UNDERGRADUATE STUDENT RESEARCH AWARD

2024 MAJOR LEAGUE HACKING TECHTOGETHER SCHOLAR

CO-CURRICULARS

PRESIDENT | NATIONAL SOCIETY OF BLACK ENGINEERS | NSBEHACKS LEAD

April 2024 - Present
NSBEHacks: Hackathon focused on
tech-focused urban/societal issues in the
21st century food insecurity and housing.
<200 participants.
>100 club members and >20 executive
members.

COURSEWORK

SOFTWARE

Object-Oriented Programming
Data Structures & Algorithms
RISC-V Assembly
SystemVerilog
Git & GitHub

HARDWARE

Microcontroller Design/Interfacing
Digital Computer Design & Prototyping
Electronic Circuit Analysis & Design

SKILLS

PROGRAMMING

Experienced:
Python • Pytorch • C++ •
HTML/CSS/JavaScript
Familiar:
Java • C# • Google Apps Script • MySQL

WORK EXPERIENCE

FRANK GU LAB & ACCELERATION CONSORTIUM

MECHATRONICS & MACHINE LEARNING ENGINEER
May 2024 - May 2025 | Toronto, ON

- Proposed a machine learning pipeline using a convolutional variational autoencoder (CVAE) to optimize tool design for lab automation.
- Developed generative ML techniques for 3D modeling co-design.
- Prototyped a rainfall simulation protocol in the Openrons OT-2.
- Database management using MongoDB and AWS S3.
Technologies: Pytorch, Python, AWS S3, MongoDB

PERSONAL PROJECTS

SONG RECOMMENDER | PYTHON | PYTORCH

Aug 2024

- Developed a song recommender system using autoencoders on spectrogram data.
- Using the most popular songs from the Spotify API, I analyzed the first 30 seconds of over 1000 songs.
- The model returns the closest latent space representation of the input song using the cosine similarity metric.
Technologies: Pytorch, Python, APIs

QURANKI | FOUNDER | ~ 1000 USERS

Aug 2022 - Present

- I procedurally divided the Quran into 10,000 segments that learners would recite individually by heart.
- The prompt for each segment is a generated sequence of prior segments that are unique in the entirety of the Quran.
Check it out here! [🔗/Nasr-905/Quranki](#)
Technologies: Python3, JavaScript, HTML, CSS, API, Apps Script, FFmpeg

DESIGN EXPERIENCE

PRAXIS I/II/III | UNIX | RAPID PROTOTYPING

Sep 2022 - Apr 2024

- Praxis III: Designed mechatronic patchouli fermenters for farmers in Indonesia
- Praxis III: Designed a greenhouse prototype optimal for plants and workers.
Check it out here! [🔗/ghazinab/dossier](#)
- Praxis II: Functional water sampling prototype for Swim Drink Fish
Technologies: Raspberry Pi (UNIX), CircuitPython, Fusion360, CAM

ESC180/ESC190 | C++ | PYTHON PROGRAMMING

Sep 2022 - Apr 2023

Honed my programming skills by undertaking diverse assignments and labs, demonstrating proficiency in both **C++** and **Python**

- Projects encompassed dynamic programming, data structures, and algorithm implementations across multifaceted applications
- Gomoku: Creation of an artificial intelligence system for playing Gomoku, employing traditional AI methodologies
- Synonyms: The application of natural language processing techniques to form multi-dimensional arrays where their distance indicates the closeness of their meanings