

# Elijah James

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## EDUCATION

### BSc. Honours Computer Science with Artificial Intelligence Specialization

Kingston, ON | Sep 2019

QUEEN'S UNIVERSITY

**Project Manager (PM):** QMIND AI Club: Healthcare Innovation Stream

**Mental Health Coordinator:** COMPSA

**Coursework:** Data Structures and Algorithms, Data Analytics, Object Oriented Programming in Java and Python, Neural Networks, Prolog, Haskell, Operating Systems, C programming, Assembly, Software Architecture, Hardware Architecture, System Design

## SKILLS

**Languages:** Python, C++, JavaScript, Powershell, HTML, CSS, Prolog

**Technologies:** Azure, Git, Unix

## WORK EXPERIENCE

### STATISTICS CANADA | PROGRAMMER ANALYST

Ottawa, ON | Sep 2022 – Sep 2024

- Taught myself **Powershell** and wrote a program to resize memory disk across all our client and dev virtual machines, reducing monthly storage costs by 70%.
- Used **Azure** and **Powershell** to write and maintain a suite of programs to help 50 clients onboard and process large datasets.

### OFFIS | SOFTWARE DEVELOPMENT INTERN

Oldenburg, Germany | May 2022 – Jul 2022

- Taught myself **Numpy** in order to translate a signal processing module written in **Matlab** to **Python**, boosting the speech quality prediction model's accuracy from 85% to 92%.
- Optimized performance of non-intrusive speech quality prediction algorithms on a high powered computing cluster using **TensorFlow** and **Keras**. Experimented with relative performance between algorithms and feature selection.
- Automated transferal of files between the high powered computing cluster and a local machine using **Python** over the scp file-sharing protocol.

### QMIND | PROJECT MANAGER, DEVELOPER

Kingston, ON | Sep 2020-April 2023

- Built a voice-print identification program with **Keras** that accurately differentiated between speakers in real time with over 85% accuracy.

## PROJECTS

### DEGREE PREDICTOR

PYTHON, SCIKIT LEARN, PANDAS

A program to help 1st year engineers choose a discipline to study, based on their enjoyment and performance in first year engineering courses.

### NSTOI-THIRDOCT

PYTHON, NUMPY

A Python implementation of the MATLAB nstoi library, which computes the third-octave band matrix of a signal.

### VOICEPRINT-IDENTIFICATION

PYTHON, KERAS, SCIKIT LEARN, ASR, AGILE DEVELOPMENT

A model which differentiates between speakers in real time once trained upon a short recording of them speaking. Repository includes a short paper written about the program.

### TODO

RUST

Built a CLI Todo app allowing users to add, mark as done, view and delete todos from anywhere in their file hierarchy within their terminal.