# MICHAEL TOO

## CONTACT INFORMATION

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## EDUCATION

**Baruch College, Bachelor of Science in Mathematics** **Sep 2022 – Present**

Relevant Coursework: Calculus I, II, Linear Algebra

## TECHNICAL SKILLS

Languages: Python, MySQL, HTML, CSS, Javascript, AutoHotkey

Technical: Jupyter Notebook, Anaconda, Google Suite, Microsoft 365 Suite, Git, Roboflow

## PROJECTS

**Cookie Clicker Bot - https://github.com/zippy0626/cookiebot** **June 2024 – Jul 2024**

• Developed a Computer Vision bot using Python and YOLOv8 that automates manual detection/clicking in the game 'Cookie Clicker', achieving 98% detection rate and reducing manual play time by 90%

• Implemented multitasking using Threading and PyAutoGUI, allowing for simultaneous auto clicking and object detection, increasing click frequency by 90% and allowing a detection rate of under .25 seconds

• Customized a pretrained YOLOv8n computer vision model using Roboflow's workflow that effectively handled a small dataset of over 150+ images, resulting in a highly accurate detection system.

**Retrieval Augmented Generation System -** https://github.com/zippy0626/new_rag **Feb 2024 - Mar 2024**

• Developed a Retrieval-Augmented Generation (RAG) system using LangChain, enabling the storage and info retrieval of 20+ PDF documents, for question answering and summarization queries from direct sources

• Implemented a Python class file manager, with methods to preprocess, convert, store, and load large PDFs (300+ pages each) using the form of vector .FAISS database files (Facebook AI Similarity Search)

• Integrated ChatGPT with .FAISS files through the Langchain framework, allowing for Q&A and summarization achieving an average query response time of under 5 seconds, improving answer accuracy by 10%

**Kaggle Housing Price Regression**

• Used Pandas library to clean

• Predicted housing price values using models like XGBoost and RandomForest, achieving ~$12K mean error

## EXPERIENCE

**ML Intern – Lotus AI** **Nov 23 – Mar 24**

• Participated in a startup called Lotus AI, which leveraged Generative AI to help students improve their habits

• Using Langchain, a powerful Python library that allows us to build apps that allow LLM's to have context

• Learning the RAG (Retrieval Augmented Generation) process which allows us to connect personal data to LLM's for question/answering or summary capabilities

**NYC 311 Call Taker, Research Foundation of CUNY** **June 2023 – Sep 2023**

• Leveraged analytical skills to swiftly identify and resolve issues for New York City customers, ensuring precise resolutions and delivering exceptional call experiences, up to 40+ calls a day

• Proficiently utilized systems such as Microsoft Dynamics 365 and B+S Connects to streamline call management, allowing for submission for over 100+ NYC Department reports per week