## KARTAVYA SINGH

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## **EDUCATION**

University of Cincinnati, Cincinnati, OH

Bachelor of Science in Computer Science

Master of Engineering in Computer Science

Cumulative GPA: 3.816 /4.00 Expected Graduation: May 2026 Expected Graduation: May 2026

**Relevant Coursework:** Operating Systems & Systems Programming, Discrete & Data Structures Algorithms, Programming Languages **Awards and Honors: University Honors Program** | RevUC Hackathon "Best Educational Hack" & "Best Use of Google API" Prize; Named in UC's dean list for Fall'21, Spring'22, Fall'22, Spring'23 for academic excellence; Certified for learning foundational AI

#### WORK EXPERIENCE AND INTERNSHIP

### iCDCU Lab, Python/Flask App Developer, Cincinnati, OH

May 2023 – August 2023

- Led the development of dynamic webpages for ResDash Project using HTML, CSS, Python, & JavaScript, resulting in successful launch of the first website ensuring an enhanced user experience for University of Cincinnati Resident Doctors
- Streamlined codebase by eliminating redundant segments and implementing reusable components across the entire project
- Integrated D3, Flask, Django, Flask Breadcrumbs, and Bootstrap, streamlining the efficiency of the optimized application by 45%

### Byte Links Systems, Data Science Intern, Houston, TX

May 2022 - July 2022

- Built and deployed PowerBI dashboard to analyze the global growth pattern of Pneumonia, identifying major causes and conducting city-wide, country-wide, and continent-wide spread analysis using various Machine Learning
- Enhanced Python proficiency by specializing in Lists, Dictionaries, NumPy, Pandas, Matplotlib, Seaborn, Hive, Flask & Django.
- Expanded expertise in Machine Learning algorithms, including Supervised/Unsupervised Machine Learning, Logistic Regression, Gradient Boost, and Neural Networks utilizing SQL, PowerBI, Tableau, PySpark achieving 20% increase in prediction accuracy

### **PROJECTS**

## MakeUC Hackathon (2023)

November 2023 – November 2023

- Developed "FaunaFinder" web app for instant animal recognition and detailed insights using HTML, CSS, JS, Python, and Flask, achieving 85-90% accuracy, utilizing Google Cloud Vision and Wikipedia APIs for initial 70-80% accuracy
- Incorporated GBIF and API-Ninjas APIs to enrich user experience with comprehensive information exceeding 95% accuracy
- Created seamless frontend-backend synergy, facilitating instantaneous data analysis and access to species details & characteristics

## Revolution UC Hackathon (2023)

February 2023 – February 2023

- Created "BearChat," an intelligent voice assistant specifically designed for University of Cincinnati students, Integrating Google API to extract weather, time, user location data, text-to-speech, and to pinpoint every building in University of Cincinnati
- Utilized TensorFlow's Deep Neural Networks (DNN) in Python to achieve over 95% accuracy and synergized HTML/CSS for the frontend with secured Flask-based backend connectivity, while developing the first virtual assistant application at UC
- Demonstrated expertise in Machine Learning, Deep Learning, Natural Language Processing (NLP), and Web Development

#### **Discord Bot Application**

October 2020 – August 2021

- Designed a thoroughly functioning Discord utility bot on JS/Python utilizing Discord.js/.py and storing user data on MongoDB
- Managed a versatile music bot with functions for creating, deleting, and modifying channels, roles, music, and game rooms
- Pioneered AniCard Bot featuring diverse games: double-player tic-tac-toe, single-player word scramble, and a single-player and multiplayer action anime card fighting game, captivating over 20,000 active users and garnering \$5,000 in donations

## **SKILLS**

# Computer Languages/Frameworks/Libraries/OS, Verbal, And Critical Thinking

- Proficient in JavaScript, Python, C++, C, HTML, CSS, Flask, D3, SQL, React, Data Structures Algorithms, Discord.js/.py, Machine Learning & Deep Learning Algorithms, Logistic Regression, MacOS, Windows, CALC I-II, Linear Algebra, Hindi
- Intermediate in Assembly, Selenium, Clerk, Artificial Neural Network, TensorFlow, Backpropagation, MongoDB, MS Office, LABVIEW, Unity, NumPy, Pandas, Matplotlib, C#, Kali Systems, Tableau, Django, .NET framework, French, Japanese, Arabic
- Beginner's level in Swift, Java, XML, Recurrent Neural Network, Neural Network Architecture, PySpark, Hive, Vanilla-JS

## LEADERSHIP AND COMMUNITY SERVICE

# Supplement Review Session (SRS) Leader & Math and Science Support (MASS) Tutor

December 2022 - Present

- Educated over 90 students across 4 sessions as a Supplemental Review Session Leader by creating engaging and educational lectures, being responsible for ensuring all students fully comprehend the taught curriculum for CALC II
- Implemented individual self-prepared lesson plans for 30+ individuals, who require extra support in college level Math, Science, and Computer Science Classes as a Math and Science Support Tutor managing full classroom supervision and instructions