## KARTAVYA SINGH

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#### **EDUCATION**

University of Cincinnati, Cincinnati, OH

Cumulative GPA: 3.76 /4.00 Bachelor of Science in Computer Science Expected Graduation: May 2026 Master of Engineering in Computer Science Expected Graduation: May 2026

Relevant Coursework: AI & ML, Parallel Computing, Computer Networks, Adv. Data Structures, Software Testing & Quality Assurance Awards and Honors: University Honors Program | Future of Data Hackathon "Best Finance Software" and MakeUC Hackathon "Best Use of AI" Prize; Named in UC's dean list for Fall'21-23, Spring'22-24 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**

# FinVest: Future of Data Hackathon (2024)

August 2024 – September 2024

- Spearheaded "FinVest", VR financial platform using Unity, C#, and .NET for financial planning and equity portfolio education
- Integrated Alpha Vantage API to track real-time data for over 15,000 stocks, Plaid.NET API to connect 3,000+ financial institutions, and SQL for secure user authentication with IndexedDB for robust transaction management and data safety
- Visualized 10+ unique 3D Charts and Graphs using Chart, is and Plotly, enhancing user interaction with dynamic financial insights

#### FaunaFinder: MakeUC Hackathon (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

## **BearChat: Revolution UC Hackathon (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

#### **SKILLS**

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

- Proficient in JavaScript, Python, Java, C#, C++, C, HTML, CSS, Flask, SQL, MongoDB, React, TypeScript, d3.js, .NET, Docker, JUnit, Spring Boot, PowerBI, Data Structures Algorithms, Discord.js/.py, Reinforcement Learning, NLP, Hindi
- Intermediate in TensorFlow, Unity, Assembly, Selenium, Kubernetes, Azure, OpenCV, GitLab, Next.is, PySpark, Google Cloud, Deep Learning Architectures, LabView, NumPy, Pandas, Matplotlib, Kali Systems, Tableau, Django, French, Japanese, Arabic
- Beginner's level in Quantum Cryptography/Computing, Rust, Go, AutoML, Vanilla-JS, Jenkins, Swift, XML, Hive, VR/AR

#### 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