

Pranav Rathod

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Education

University of Illinois at Chicago (UIC)

Bachelor of Science in Computer Science, Minor in Art

GPA: 3.92/4.00

Relevant Coursework: Data Structures, Algorithms, Artificial Intelligence, Data Science, Database Systems, Computer Graphics, AR/VR, Framework-based Development, Systems Programming.

Skills

Programming Languages: Java, C/C++, C#, Python, Dart, SQL, F#, HTML, JavaScript, CSS, Arduino.

Technical: Multi-Threading, Locking, TCP/IP, Flutter SDK, APIs, GCP, Firebase, SQLite3, Git, MacOS, Windows, Unix/Linux, Android Studio, Google/JUnit5 Testing Framework, Docker, Unity, Vuforia Engine.

Work Experience

- **Undergraduate Research Assistant, Chicago, IL** *June 2022 - Present*
iMIX Lab @ University of Illinois at Chicago
 - Working on a project to understand multimodal user interactions to train machine learning models.
 - Created an application using Flutter to log user's speech and gesture interactions and correlate them.
 - Conducting user studies to gather varied data of user interactions and log them into CSV files.
 - Leveraging GCP's Speech-to-Text for speech recognition and generating timestamps.
- **Undergraduate Teaching Assistant, Chicago, IL** *January 2022 - December 2022*
UIC Department of Computer Science.
 - Provided effective feedback to students by grading assignments for a Framework-based Dev course.
 - Assisted students in debugging and writing code to build applications using Flutter.
 - Utilized communication platforms to effectively instruct multiple students at once.

Projects

- **Traffic Crash Analysis, Python, Pandas, JavaScript** *December 2022*
 - Analyzed open source data to understand traffic crashes in and around the city of Chicago.
 - Categorized and observed traffic crashes based on region, vehicle types, time of the year.
 - Drafted an ML model using K-Means clustering and Naive-Bayes to predict intensity of crashes.
- **C Compiler, F#** *April 2022*
 - Drafted a system in F# that compiles and executes a C program.
 - Converted C code to a list and parsed using recursive-descend to check for syntax errors.
 - Constructed a symbol table to store identifiers, their data types, and check for type mismatch errors.
- **Chicago Transit Authority (CTA) Data Analysis, Python, SQLite3** *February 2022*
 - Utilized open-source CTA database to analyze 20 years worth of ridership data.
 - Used Python to accept user requests and make queries to the database through SQLite3.
 - Visualized and compared trends of different CTA lines using the PyPlot library.
- **15 Puzzle, Java, javaFX, Eclipse, Maven** *April 2021*
 - Built a 15 tile puzzle game using the javaFX library to make the user interface for server and client.
 - Allowed multiple clients to join the same or different server using multi-threading.
 - Implemented an AI A* Heuristics algorithm to assist users in making their next move.

Awards

- **Undergraduate Research Forum, Chicago, IL** *April 2023*
 - Achieved 3rd place in the Engineering and Physical Sciences category.
 - Presented innovative research on enhancing image editing mobile applications using NUI.
 - Engaged in discussions, answered questions, and welcomed feedback on project methodologies.
- **UIC Engineering Expo, Chicago, IL** *April 2021*
 - Won 'Best in Category' for Room Occupancy Counter and Temperature Alarm (ROCTA).
 - Designed an Arduino based device to enforce COVID-19 social distancing using an alarm.
 - Tracked the number of people in an enclosed space, along with the room's temperature.