RAJAS GANDHI

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EDUCATION

University of Illinois at Urbana-Champaign   Overall GPA: 3.7   Expected Graduation: May 2026
Bachelors of Science in Computer Science

EXPERIENCE

Software Engineer Intern, Algorithmic Trading   May 2024 – August 2024
AlgoAnalytics - Indian AI/ML-focused startup with clients such as NTT Data, Intel, Fiserv, and Kohl's   Pune, Maharashtra, India
- Created a data processing pipeline using **Python** and **pandas** to process financial data and technical indicators of stocks
- Utilized **random forest classification** and other techniques to classify if a stock will outperform an index in the next year
- Ran regression testing to identify beta and alpha values of stocks compared to indices to identify suitable stock candidates
- Achieved 20% annualized returns rate after conducting back-testing and simulation analysis through an internal framework

Software Engineer   February 2024 - Present
Quant Illinois   *Champaign, IL*
- Engineered a Vickrey-style web application for a quantitative trading competition using **React.js** and **Google Firebase**
- Partnered with IMC Trading to host execution of a market-making market simulation competition attracting 150+ entrants
- Designed a responsive, clean UI with multiple React libraries to effectively display information to competitors and managers
- Resolved synchronization issues in real-time data processing, ensuring seamless competition operations

Software Engineer Intern   February 2024 - May 2024
ElectroKare   *Champaign, IL*
- Developed an innovative non-invasive method to track electrolyte levels among athletes and other individuals
- Worked on internal tool using **React** to streamline and optimize machine learning development processes and infrastructure
- Developed data visualization tools to track accuracy of machine learning algorithms improving accuracy by 10%

Founder   July 2018 - Present
RMG Studios   *Aurora, IL*
- Developed a pedestrian safety mobile application using **Java** and **Android Studio** to limit injury while crossing roads in cities
- Engineered mobile app that uses camera and machine learning to determine if item is recyclable to reduce trash waste
- Created an app using **Kotlin** and Android Studio that allows users to find and create communities through food

Research Assistant – HPVM Project   May 2021 - August 2021
University of Illinois at Urbana-Champaign   *Remote*
- Worked with Dr. Vikram Adve and graduate students on **HPVM**, a tool for programming heterogenous systems easier
- Created multiple **LLVM** passes to extract information about a **C/C++** program input and output info into a JSON file
- Utilized **Python** and **React.js** to develop a start-to-finish visualization tool of the LLVM version of an inputted C/C++ file

PROJECTS

15-Puzzle Solver   Spring 2024
- Developed a **C++** application to find the most optimal solving route between two puzzle states in the 15-puzzle
- Utilized solving algorithms like **breadth first search** and **A* search** to efficiently solve the puzzle
- Wrote a custom hash function to efficiently store different puzzle states that cut large puzzle solve times by 50%

Discrete Structures Graph Relations Tool   Fall 2023
- Built a **React** application with open-source finite state machine designer to analyze graph relations for discrete structures
- Applied theoretical knowledge of discrete structures concepts (reflexivity, transitivity, symmetry) in a practical application

FoodStash   Fall 2022
- Utilized **React Native** to help build an app that reduces food waste and gives personalized food waste management tips
- Implemented **Google Firebase** authentication and real-time database allowing users to sign in and securely store data
- Successfully deployed app to Apple and Google Play app stores and received over 30+ downloads with a rating of 4.5/5

ADDITIONAL INFORMATION

Computer Skills: Java, Python, C++, Android Studio, GitHub, Git, React.js, Unix/Linux, SQL, React Native, JavaScript
Interests: Hiking, International Cuisines, Quantitative Finance, Chicago Bears, Sports, Blockchain, The Office, Poker
Work Eligibility: Eligible to work in the U.S. with no restrictions