

# Kruthay Kumar Reddy Donapati

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## EDUCATION

### Master's in Computer Science

George Mason University, GPA : 3.9/4

Aug 2021 - May 2023

Fairfax, VA

### Bachelor's in Technology

CVR College of Engineering, GPA : 3.95/4

Aug 2016 - Aug 2020

Hyderabad, India

## EXPERIENCE

### Graduate Teaching Assistant, George Mason University

Jan 2022 - Present

Fairfax, VA

- Course: Analysis of Algorithms, Formal Methods, and Models, Mobile Application Development
- Led a team of 5 GTAs in grading 4 sections with 250+ students.
- Developed a Python grade script to automate assessment of weekly Java projects using JUnit tests, reducing grading time from 20 hours to just 25 minutes.
- Developed a shell script for automated installation of 100+ android applications using Android Debug Bridge (adb)
- Taught special class sessions for a group of 30 students interested in learning NP Hard, NP Complete complexity problems and advanced algorithms that are out of the scope of the course

### Software Engineer, GSK Technologies

Dec 2019 - Jan 2021

Hyderabad, India

#### Data Science

- Played a key role in cleansing and analyzing unstructured and imbalanced real-world client data, preparing it for effective modeling and analysis.
- Utilized LSTM to predict client's profit ratio and align their needs with data-driven insights.
- Technologies : Python, PyTorch, Pandas, NumPy,

#### iOS Application Development

- Upgraded UI from UIKit to SwiftUI, leading to better user experience with smoother interactions.
- Identified and thoroughly addressed performance issues, implementing optimizations that resulted in a significant 20% improvement in overall app performance.
- Enhanced user experience by adding a pull-to-refresh feature, allowing users to refresh data seamlessly within the app.
- Technologies : Swift, SwiftUI, XCode, MVVM, Core Data

## PROJECTS

### Remote Mouse <https://github.com/kruthay/MagicTracker/>

Sep 2023

- Designed and implemented a Remote Mouse iOS application, enhancing macOS control convenience.
- Employed Network.framework and UDP Protocol to enable wireless and wired connectivity for optimal performance
- Developed for iOS, iPadOS, macOS
- Technologies: SwiftUI, MVVM, Network.Framework, Git

### Garments <https://github.com/kruthay/Garments/>

Aug 2023

- Created a sample Core Data project using SwiftUI to stress-test SwiftUI's scrolling using Lists and ScrollView + LazyVStack performance.
- Maintained smooth scrolling and instantaneous dynamic sorting with Core Data for 10 million objects.
- Technologies: SwiftUI, MVVM, Core Data

### Clever Jacks: Cards-Game <https://kruthay.github.io/CleverJacksApp/>

Jul 2023

- Created an engaging multiplayer turn-based iOS app featuring the popular Sequence card game.
- Implemented robust multiplayer features, enabling seamless gameplay with friends through manual invitation or automatching, while incorporating in-game messaging and turn reminders for enhanced user interaction.
- Developed for iOS, iPadOS, MacOS Catalyst
- Technologies: SwiftUI, MVVM, GameKit, Git, TestFlight, Custom SF Symbols.

App Store : <https://apps.apple.com/us/app/clever-jacks/id6450907461>

### Full Stack Web Application: [github.com/kruthay/Full-Stack-SPA](https://github.com/kruthay/Full-Stack-SPA)

May 2022

- Developed a single page web application using Angular, RESTful Web Services, Tomcat, SpringBoot and JPA along with Amazon RDS.
- The application allowed students to participate in surveys, gather class information from PDFs, and showcased comprehensive data analysis for easy accessibility by all website users.
- Frontend: Angular, Bootstrap, Visual Studio Code. Backend: Spring Boot Framework through STS tools, Amazon RDS, Container Orchestration: Docker, Rancher, Kubernetes, AWS EC2.

## SKILLS

- **Languages:** Python, Swift, Java, C
- **iOS Development :** SwiftUI, XCTest, Fastlane, Network.framework, Core Data
- **Software Development** HTML, CSS, JavaScript, Angular, AWS Services, JUnitTest, Git, Spring Boot, Jenkins
- **Machine Learning:** PyTorch, Pandas, NumPy
- **Databases:** MySQL, Oracle

## AWARDS

**Outstanding Graduate Teaching Assistant Award**, Computer Science, George Mason University

2023

**Outstanding Academic Achievement Award**, Computer Science, George Mason University

2023